ORDER NO. VRD8804M120

Service Manual

Video Cassette Recorder

National/Panasonic VHS HQ

PAL NTSC NTSC4.43

NV-G50PX
NV-G300EM

General Description
Adjustment Procedures
Block/Schematic Diagrams
Exploded Views/Parts List

NV-G50PX

National/Panasonic

Matsushita Electric Industrial Co., Ltd.
Central P.O. Box 288, Osaka 530-91, Japan

INTRODUCTION

This service manual contains technical information witch will allow service personnels to understand and service this model.
Section 1 presents you with some general information of features and controls, enabling you to become familiar with each function.
Section 2 contributes to your mechanical and electrical adjustment as well disassembly and replacement procedures.
In the case of very common information relating to other models like mechanical adjustments, please refer to each service manual.
Section 3 contains block diagrams which offers you information for checking and understanding each circuit. Schematic diagrams wich give you detailed information such as waveforms, voltage data, function e.t.c...
Section 4 contains exploded views and parts list.
Please place orders using the parts list and not the drawing reference numbers.
If the circuit is changed or modified, this information will be followed by supplementary service manual to be filed with original service manual.

SPECIFICATIONS

ITEM	SPECIFICATION
POWER	SOURCE: 110~240V 50/60Hz
	CONSUMPTION: 23 watts
RECORDING SYSTEM	2 rotary heads, helical scanning system
	PAL, NTSC
TV TUNER SYSTEM	VHF Ⅰ: NTSC; CH2~CHA-3 (NV-G50PX) 75Ω unbalanced PAL/SECAM B·G·D·K·I; CHE2~CHS3 (CHE2~CHE4, CHS1~CHS3) 75Ω unbalanced VHF Ⅲ: NTSC; CHA-2~CHW (NV-G50PX) 75Ω unbalanced PAL/SECAM B·G·D·K·I; CHM1~CHU10 (CHM1~CHM10, CHE5~CHE12, CHU1~CHU10) 75Ω unbalanced UHF: NTSC; CH14~CH69 (NV-G50PX) 75Ω unbalanced PAL/SECAM B·G·D·K·I; CH21~CH69 75Ω unbalanced
RF OUT SYSTEM	UHF: CH36±4, 73±3dBμ, 75Ω unbalanced (NTSC/PAL G/PAL I/SECAM K)
VIDEO	HEADS: 4 rotary heads 1 pair for recording, playpack (L-R heads) 1 pair for trick play (L′-R′ heads)
	INPUT: VIDEO IN Connector (PHONO type) 1.0Vp-p, 75Ω terminated
	OUTPUT: VIDEO OUT Connector (PHONO type) 1.0Vp-p, 75Ω terminated
AUDIO	HEAD: 1 Stationary head

ITEM	SPECIFICATION
AUDIO	INPUT: AUDIO IN Connector (PHONO type), more than −10dBV (316mV), more than 50kΩ
	OUTPUT: AUDIO OUT Connector (PHONO type), −8dBV (400mV), more than 1kΩ
TAPE FORMAT	VHS Cassette tape (Tape width 12.7mm)
TAPE SPEED	PAL/MESECAM; SP: 23.39mm/s PAL/MESECAM; LP: 11.695mm/s (NV-G50PX) NTSC; SP: 33.3mm/s NTSC; SLP: 11.1mm/s Record/Playback Time: SP; 4 hours with 240min. type tape (PAL/MESECAM) 2.5 hours with 160min. type tape (NTSC) LP; 8 hours with 240min. type tape (PAL/MESECAM) SLP; 8 hours with 160min. type tape (NTSC) FF/REW Time: less than 5.5min. with 180min. type tape
DIMENSIONS	430 (W) × 82 (H) × 370 (D) mm
WEIGHT	6.0kg (NV-G50PX), 5.8kg (NV-G300PX)
STANDARD ACCESSORIES	1pc. DIN-RF cable 1pc. Infra-red remote controller 1pc. Power plug adaptor 1pc. AC cord 1pc. Digital scanner 1pc. Digital scanner case 1pc. Cleaning brush 1pc. 75Ω DIN plug(NV-G50PX) 1pc. U/V splitter (NV-G50PX) 1pc. DIN F plug adaptor (NV-G50PX) 1pc. Antenna plug (NV-G50PX)

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

SAFETY PRECAUTIONS

GENERAL GUIDELINES

1. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
2. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
3. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

LEAKAGE CURRENT COLD CHECK

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. When the exposed metallic part has a return path to the chassis, the reading should be between 1MΩ and 5.2MΩ.
   When the exposed metal does not have a return path to the chassis, the reading must be ∞.

LEAKAGE CURRENT HOT CHECK (See figure 1.)

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a 1.5kΩ, 10 watts resistor, in parallel with a 0.15µF capacitor, between each exposed metallic part on the set and a good earth ground such as a water pipe, as shown in figure 1.
3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 0.75 volts RMS. A leakage current tester (Simpson Model 229 equivalent) may be used to make the hot checks, leakage current must not exceed 1/2 milliamp. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

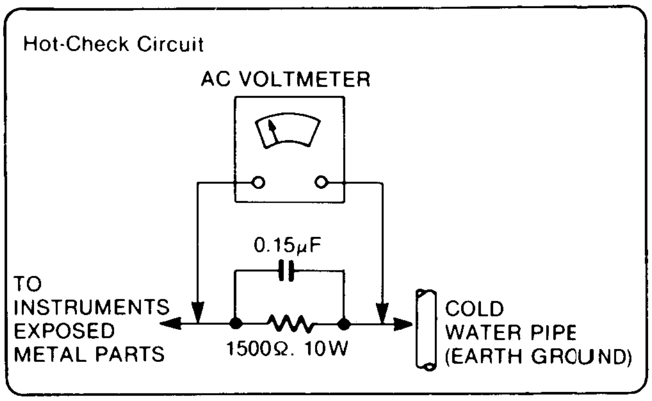

Hot-Check Circuit
AC VOLTMETER
0.15µF
TO INSTRUMENTS EXPOSED METAL PARTS
1500Ω. 10W
COLD WATER PIPE (EARTH GROUND)

Figure 1

ELECTROSTATICALLY SENSITIVE (ES) DEVICES

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
   CAUTION: Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device).

CONTENTS

SECTION 1

GENERAL DESCRIPTIONS

- 1-1. FEATURES (NV-G50PX) 1-1
- 1-2. FEATURES (NV-G300EM) 1-2
- 1-3. CONTROLS & COMPONENTS 1-3
- 1-4. INFRA-RED CONTROLLER 1-6
- 1-5. DIGITAL SCANNER 1-8

SECTION 2

ADJUSTMENT PROCEDURES

- 2-1. MECHANICAL ADJUSTMENT PROCEDURES 2-1
- 2-2. DISASSEMBLY METHOD 2-1
  - 2-2-1. DISASSEMBLY FLOW CHART 2-1
  - 2-2-2. DETAIL OF DISASSEMBLY METHOD 2-1
  - 2-2-3. REINSTALLATION OF CASSETTE COMPARTMENT FROM STOP (FF/REW) POSITION 2-4
  - 2-2-4. HOW TO EJECT MANUALLY 2-5
  - 2-2-5. HOW TO SEE THE MOVEMENT OF MECHANISM WITHOUT CASSETTE COMPARTMENT 2-6
- 2-3. REPLACEMENT OF CYLINDER UNIT 2-6
  - 2-3-1. REPLACEMENT OF THE D.D. CYLINDER UNIT 2-6
  - 2-3-2. REPLACEMENT OF THE CYLINDER DRIVE C.B.A. 2-7
  - 2-3-3. REPLACEMENT OF THE CYLINDER DRIVE IC 2-7
  - 2-3-4. REPLACEMENT OF THE UPPER CYLINDER UNIT 2-8
- 2-4. ELECTRICAL ADJUSTMENT PROCEDURES 2-9
  - SERVO SECTION 2-9
  - LUMINANCE, CHROMINANCE & HEAD AMP SECTION 2-11
  - AUDIO SECTION 2-13
  - TV DEMODULATOR SECTION 2-16
- CIRCUIT BOARD LAYOUT 2-13
- LOCATION OF TEST POINTS & CONTROLS — 1 — 2-14
- LOCATION OF TEST POINTS & CONTROLS — 2 — 2-15

SECTION 3

BLOCK DIAGRAMS & SCHEMATIC DIAGRAMS

- 3-1. SYSTEM CONTROL, SERVO & TIMER BLOCK DIAGRAM 3-1
- 3-2. LUMINANCE & CHROMINANCE (NV-G50PX) BLOCK DIAGRAM 3-6
- 3-3. LUMINANCE & CHROMINANCE (NV-G300EM) BLOCK DIAGRAM 3-11
- 3-4. POWER SCHEMATIC DIAGRAM 3-15
- 3-5. POWER C.B.A. & POWER INLET C.B.A. 3-17
- 3-6. SUB CHROMINANCE SCHEMATIC DIAGRAM (NV-G50PX ONLY) 3-19
- 3-7. SUB CHROMINANCE C.B.A. 3-21
- 3-8. SERVO & SYSTEM CONTROL SCHEMATIC DIAGRAM 3-23
- 3-9. SERVO & SYSTEM CONTROL C.B.A., SUB SERVO C.B.A. & CYLINDER DRIVE C.B.A. 3-28
- 3-10. MAIN SCHEMATIC DIAGRAM 3-31
- 3-11. MAIN C.B.A. 3-37
- 3-12. LUMINANCE & CHROMINANCE PACK C.B.A. 3-39
- 3-13. LUMINANCE & CHROMINANCE PACK SCHEMATIC DIAGRAM 3-41

3-14. 0.32H SKEW SCHEMATIC DIAGRAM 3-45
3-15. 0.32H SKEW C.B.A. 3-48
3-16. INPUT/OUTPUT PACK C.B.A. 3-48
3-17. INPUT/OUTPUT PACK SCHEMATIC DIAGRAM 3-49
3-18. ARTIFICIAL PAL PACK SCHEMATIC DIAGRAM (NV-G300EM ONLY) 3-51
3-19. ARTIFICIAL PAL PACK C.B.A. 3-53
3-20. HEAD AMP C.B.A. 3-53
3-21. HEAD AMP SCHEMATIC DIAGRAM 3-54
3-22. TIMER SCHEMATIC DIAGRAM 3-56
3-23. TIMER C.B.A. & IR RECEIVER C.B.A. 3-59
3-24. CH SELECT, TV DEMODULATOR & TUNER SCHEMATIC DIAGRAM 3-62
3-25. CH SELECT C.B.A., TV DEMODULATOR & TUNER C.B.A. 3-65
3-26. OPERATION SCHEMATIC DIAGRAM 3-67
3-27. OPERATION C.B.A. 2-67
3-28. DIGITAL SCANNER SCHEMATIC DIAGRAM 3-69
3-29. DIGITAL SCANNER C.B.A. 3-69
3-30. REMOTE CONTROLLER SCHEMATIC DIAGRAM 3-71
3-31. REMOTE CONTROLLER C.B.A. 3-71
3-32. RF CONVERTER SCHEMATIC DIAGRAM 3-72
3-33. INTERCONNECTION SCHEMATIC DIAGRAM 3-73
3-34. ICs & TRs INFORMATION 3-75

SECTION 4
EXPLODED VIEWS & PARTS LIST

4-1. EXPLODED VIEW

1. CHASSIS PARTS SECTION (1) 4-1
2. CHASSIS PARTS SECTION (2) 4-2
3. CASSETTE UP MECHANISM SECTION 4-3
4. CASING PARTS SECTION 4-4
5. PACKING PARTS SECTION 4-5
6. REMOTE CONTROLLER UNIT 4-6
7. DIGITAL SCANNER 4-7

MECHANICAL REPLACEMENT PARTS LIST

ELECTRICAL REPLACEMENT PARTS LIST

REMARKS

1. It is possible to receive, record and play back colour broadcasts from East Germany (DDR) on this video recorder.
2. When a video tape that was recorded with a colour TV broadcast from East Germany on this VTR is played back on a SECAM (France) or a PAL VTR, the picture may be in black and white.
3. When a video tape recorded on a SECAM (France) VTR or a SECAM (France) pre-recorded video tape is played back on this VTR, the picture is in black and white.

SECTION 1
GENERAL DESCRIPTIONS

1-1. FEATURES (NV-G50PX)

Slim Design and Front Loading System

This highly functional design allows loading the video cassette from the front, thus minimizing the space required for the placement.

Multi-Function Display

Whenever an operation button is pressed, the activated function is immediately indicated on this easy-to-see display. It shows you at a glance, in what operation mode the VTR is functioning.

Super Still, Super Still Advance and Double Super Fine Slow Playback

Super Still, Super Still Advance and Double Super Fine Slow Playback are possible with superb picture quality free from noise and jitter.

Reception of up to 99 TV Stations

The built-in tuner in this VTR allows pre-tuning of as many as 99 TV stations. So this VTR can accommodate virtually any increase in available TV programmes in the future.

Infra-red Remote Controller

The Infra-red Remote Controller unit allows operating various functions from the comfort of your favourite viewing position.

Lap Time Counter

The new Lap Time Counter is a great improvement over the approximate counter systems of conventional VTRs. It gives you an exact reading of the elapsed tape time in hours, minutes and seconds, and makes it easy to calculate the tape time left on a cassette.

Digital Scanner

This digital Scanner lets you program timer recordings by tracing the corresponding bar codes on the supplied Programming Sheet and then transmitting the data to the VTR.

Time Search

It is possible to locate the desired scene directly by inputting the hour, minute and second of that scene.

Picture Sharpness Control

With this control, the contours of the playback picture can be made sharper or softer.

Auto Voltage Selector

This unit is equipped with an Automatic Voltage Selector. The unit can be used where the local voltage indication is between 110–240 V, without any manual voltage adjustment.

1-Month Calender Timer

The clock/timer of the VTR is programmed with the calendar up to the end of 2002. Programming of as many as 4 timer recordings is possible up to one month in advance.

Auto Operation

The extremely convenient Auto Operation functions of this VTR include Auto Start, Cue and Auto Play when a recorded cassette is inserted, Auto Eject which indicates that an inserted cassette is not suitable for recording, VTR-Off Eject for ejecting a cassette even with the VTR off, and Auto Rewind at the end of a tape. If the Power On/Off Switch is pressed during the rewind mode including Auto Rewind, the VTR will eject the cassette and turn itself off when rewinding is completed (Rewind Shut Off).

Super OTR Function
(One-Touch Timer Recording)

This convenient function makes it possible to easily program the VTR for recording of TV programmes with immediate start or with start within 24 hours by precisely setting the starting time and ending time to the desired minute. When the recording ends, the VTR will automatically turn itself off.

HQ (High Quality) Picture System

Video recorders carrying the HQ symbol mark feature the new VHS High Quality Picture System. This system assures complete compatibility with VTRs that use the conventional VHS system.

8 Hours Recording and Playback

The LP (SLP: NTSC) mode with a maximum recording and playback time of 8 hours on a NV-E240 (NV-T160: NTSC) video cassette gives you double savings in tape costs and storage space.

Recording and Playback and possible with PAL, MESECAM or NTSC 3.58 MHz systems

This unit is designed for recording and playback of VHS recordings with PAL, MESECAM or NTSC 3.58 MHz colour signals.

Auto Tracking

The tracking is automatically adjusted during playback.

1-2. FEATURES (NV-G300EM)

Slim Design and Front Loading System

This highly functional design allows loading the video cassette from the front, thus minimizing the space required for the placement.

Multi-Function Display

Whenever an operation button is pressed, the activated function is immediately indicated on this easy-to-see display. It shows you at a glance, in what operation mode the VTR is functioning.

Super Still, Super Still Advance and Double Super Fine Slow Playback

Super Still, Super Still Advance and Double Super Fine Slow Playback are possible with superb picture quality free from noise and jitter.

Reception of up to 32 TV Stations

The built-in tuner in this VTR allows pre-tuning of as many as 32 TV stations. So this VTR can accommodate virtually any increase in available TV programmes in the future.

Infra-red Remote Controller

The Infra-red Remote Controller unit allows operating various functions from the comfort of your favourite viewing position.

Lap Time Counter

The new Lap Time Counter is a great improvement over the approximate counter systems of conventional VTRs. It gives you an exact reading of the elapsed tape time in hours, minutes and seconds, and makes it easy to calculate the tape time left on a cassette.

Digital Scanner

This Digital Scanner lets you programme timer recordings by tracing the corresponding bar codes on the supplied Programming Sheet and then transmitting the data to the VTR.

Time Search

It is possible to locate the desired scene directly by inputting the hour, minute and second of that scene.

Picture Sharpness Control

With this control, the contours of the playback picture can be made sharper or softer.

Auto Voltage Selector

This unit is equipped with an Automatic Voltage Selector. The unit can be used where the local voltage indication is between 110–240 V, without any manual voltage adjustment.

1-Month Calender Timer

The clock/timer of the VTR is programmed with the calendar up to the end of 2002. Programming of as many as 4 timer recordings is possible up to one month in advance.

Auto Operation

The extremely convenient Auto Operation functions of this VTR include Auto Start, Cue and Auto Play when a recorded cassette is inserted, Auto Eject which indicates that an inserted cassette is not suitable for recording, VTR-Off Eject for ejecting a cassette even with the VTR off, and Auto Rewind at the end of a tape. If the VTR On/Off Switch is pressed during the rewind mode including Auto Rewind, the VTR will eject the cassette and turn itself off when rewinding is completed (Rewind Shut Off).

Super OTR Function (One-Touch Timer Recording)

This convenient function makes it possible to easily programme the VTR for recording of TV programmes with immediate start or with start within 24 hours by precisely setting the starting time and ending time to the desired minute. When the recording ends, the VTR will automatically turn itself off.

HQ (High Quality) Picture System

Video recorders carrying the HQ symbol mark feature the new VHS High Quality Picture System. This system assures complete compatibility with VTRs that use the conventional VHS system.

Playback of Programmes Recorded in the NTSC Long Play Modes (LP and SLP)

This VTR also makes it possible to play back tapes that were recorded with NTSC programmes in the LP mode or in the SLP mode on another VTR.

Recording and Playback and possible with PAL, MESECAM or NTSC 4.43 MHz systems

This unit is designed for recording and playback of VHS recordings with PAL, MESECAM or NTSC 4.43 MHz colour signals.

NTSC Playback Function

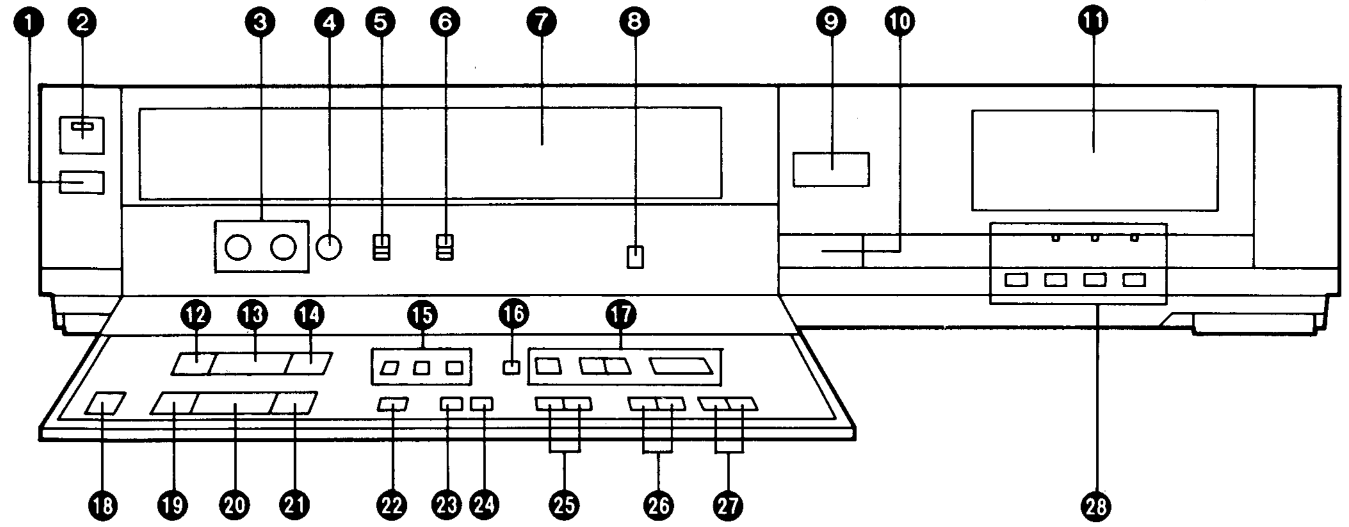
Prerecorded NTSC system tapes and tapes recorded with NTSC system broadcasts can be played back on any PAL system television set.

Auto Tracking

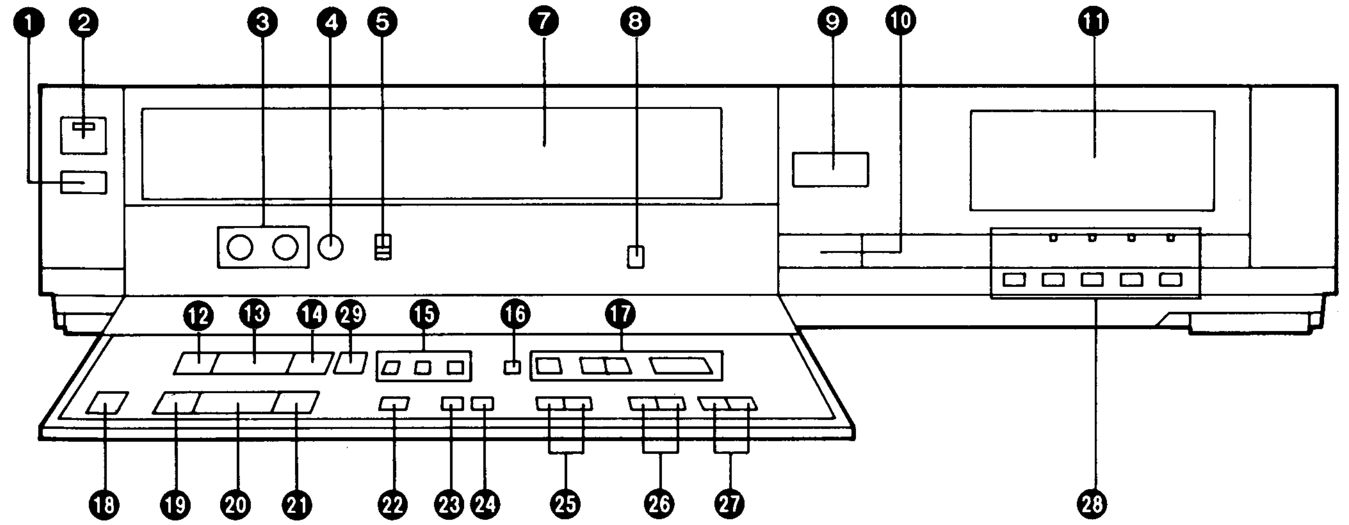
The tracking is automatically adjusted during playback.

1-3. CONTROL & COMPONENTS

FRONT (NV-G50PX)


❶
❷
❸
❹
❺
❻
❼
❽
❾
❿
⓫
⓬
⓭
⓮
⓯
⓰
⓱
⓲
⓳
⓴
㉑
㉒
㉓
㉔
㉕
㉖
㉗
㉘

(NV-G300EM)


❶
❷
❸
❹
❺
❼
❽
❾
❿
⓫
⓬
⓭
⓮
㉙
⓯
⓰
⓱
⓲
⓳
⓴
㉑
㉒
㉓
㉔
㉕
㉖
㉗
㉘

❶ Cassette-in Indicator

❷ Power On/Off Switch with Indicator

❸ Tracking Control

❹ Picture Sharpness Control

❺ Edit Switch

❻ Tape Speed Selector (NV-G50PX ONLY)

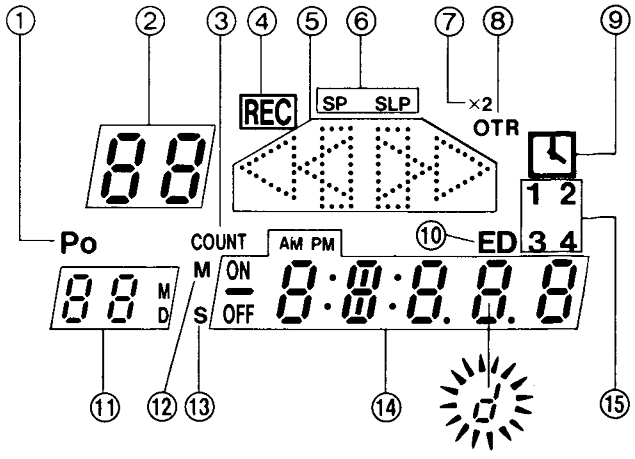
❼ Cassette Compartment

❽ Timer Record Button

❾ Infra-red Remote Control Receiver

❿ Control Panel Open Button

⓫ Multi-Function Display


①
②
③
④
⑤
⑥
⑦
⑧
⑨
REC
SP SLP
×2
OTR
Po
COUNT
AM PM
⑩
ED
1 2
3 4
M
S
ON
OFF
M
D
⑪
⑫
⑬
⑭
⑮

When dew forms:
Dew Indicator

① Position Indicator

② Channel Display

③ Tape Counter Mode Indicator

④ Recording Indicator

⑤ Tape Running Display

⑥ Tape Speed Indicator

⑦ Double Speed Indicator

⑧ OTR Indicator

⑨ Timer Recording Indicator

⑩ Everyday Indicator

⑪ Date Display

⑫ Memory Indicator

⑬ Search Lock Indicator

⑭ Clock/Counter Display

⑮ Timer Program Number

⓬ Rewind ◀◀/Review ⊟ Button

⓭ Play Button (▶)

⓮ Fast Forward ▶▶/Cue ⊟ Button

⓯ Tuner Set-up Controls

(NV-G50PX)

	VHF		UHF
	I	III	U
NTSC	2-A-3	A-2-W	14–69
PAL/SECAM B•G D•K I	E2–S3 (E2–E4 S1–S3)	M1–U10 (M1–M10 E5–E12 U1–U10)	21–69

The tuner in the VTR can be preset for up to 99 stations.

(NV-G300EM)

	VHF		UHF
	I	III	U
PAL/SECAM B•G D•K I	E2–S3 (E2–E4 S1–S3)	M1–U10 (M1–M10 E5–E12 U1–U10)	21–69

The tuner in the VTR can be preset for up to 32 stations.

⓰ Clock button

⓱ Timer Controls

⓲ Eject Button (⏏)

⓳ Pause/Still Button (❚❚)

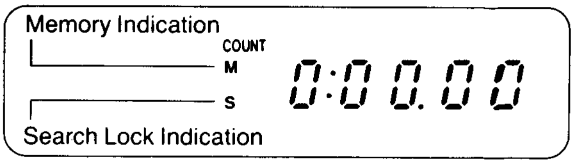
⓴ Stop Button (■)

㉑ Record Button (●)

㉒ Clock/Counter Selector

㉓ Memory/Search Lock Button

The Memory function makes it simple and fast to find a certain position on the tape later again, simply by pressing the Reset Button at that position to set the tape counter to "0:00.00" and by pressing the Memory/Search Lock Button. During Rewind or Fast Forward, the tape will then stop at approximately the desired position.



- Even if the Clock/Counter Display is switched over to "Clock" Display after pressing the Memory/Search Lock Button, the Memory function will stop the tape at the desired position.

㉔ Reset Button

㉕ Channel Selection Up and Down Buttons

㉖ OTR On Buttons

㉗ OTR Off Buttons

㉘ System Selector

(NV-G50PX)

The video recorder is usually operated with the System Selector Button "AUTO" in pressed position.
However, if the colour picture is not stable, it may be possible to improve it by pressing the System Selector Button that corresponds to the system of the program to be recorded or played back.

❶ **AUTO**
If the System Selector Button "AUTO" is pressed, the VTR automatically selects the colour system that corresponds to the program to be recorded or played back, and the System Indicator Lamp for this system will light up.

❷ **NTSC**
This System Selector Button can be pressed, when the VTR is to be used for recording and playback of programmes in the NTSC 3.58 MHz colour signal system.

❸ PAL

This System Selector Button can be pressed, when the VTR is to be used for recording and playback of programmes in the PAL system.

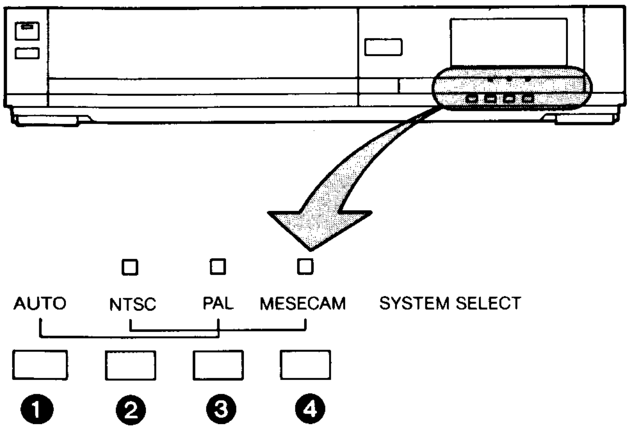
❹ MESECAM

This System Selector Button can be pressed, when the VTR is to be used for recording and playback of programmes in the MESECAM colour signal system.

- Avoid pressing the buttons simultaneously.

REMARK

No picture will be reproduced, if the colour system of the recording on the tape is different from the colour system of the TV set.



REMARK

It is not possible to monitor the picture, when the colour system of playback picture and TV set is different. (except for NTSC P•B)

■ System Display Lamps

The lamp corresponding to the mode selected by the System selector lights.

When the switch is at the AUTO position

- The lamp of the system being recorded or played back lights.
- In case of black-white signal, the NTSC 4.43 MHz lamp lights when the only NTSC signals are being recorded or played back.

(NV-G300EM)

This switch is normally set to the AUTO position except for playing back on the NTSC P•B.
The position except for AUTO is as used for forced system switch. When the picture is not stable, use the unit with setting the switch to the TV system which is recording or playing back.

❶ AUTO

If the System Selector Button "AUTO" is pressed, the VTR automatically selects the colour system that corresponds to the programme to be recorded or played back, and the System Indicator Lamp for this system will light up.

❷ NTSC 4.43

This System Selector Button can be pressed, when the VTR is to be used for recording and playback of programmes in the NTSC 4.43 MHz colour signal system.

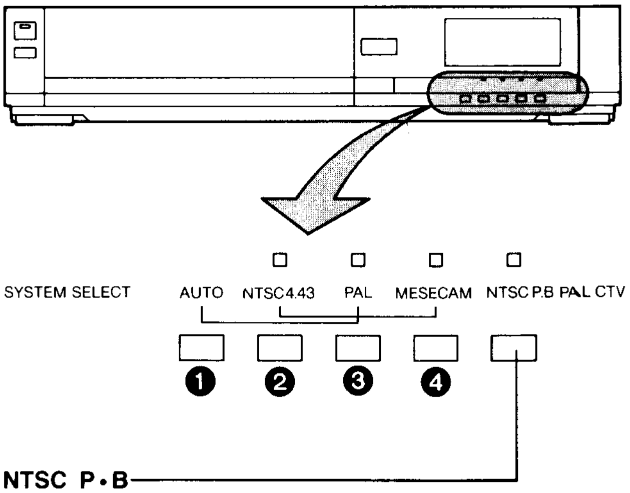
❸ PAL

This System Selector Button can be pressed, when the VTR is to be used for recording and playback of programmes in the PAL system.

❹ MESECAM

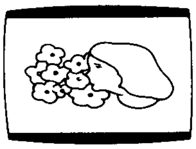
This System Selector Button can be pressed, when the VTR is to be used for recording and playback of programmes in the MESECAM colour signal system.

- Avoid pressing the buttons simultaneously.

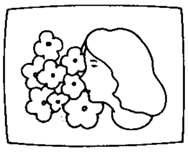


NTSC P•B

This position is used for playback only of pre-recorded NTSC tapes via a PAL system TV set.



(NTSC P•B)



(NTSC 4.43, PAL, MESECAM)

REMARK

The playback picture will shrink vertically, and black bars will appear both on the top and bottom of the screen. This is not an indication of a malfunction.

And the playback picture may roll up or down, and there may be no color in the picture.

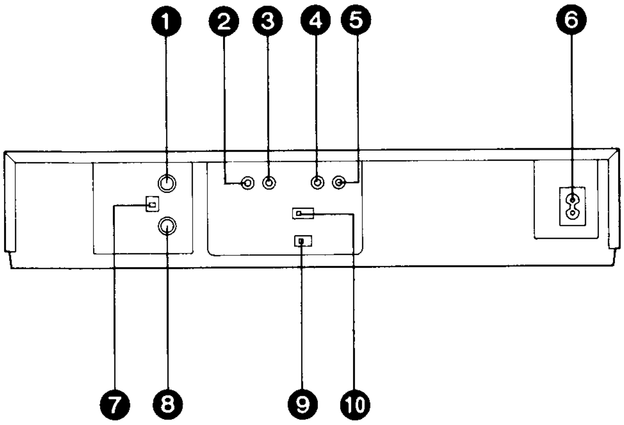
If the picture should roll up or down, adjust it with the V-HOLD control on the TV.

When a multi-system TV is being used, upon playing back NTSC tapes, set the System Selector of the TV to "NTSC" (NTSC 4.43 MHz is not included). When NTSC system is not included, set the Selector of the TV to PAL after setting the System Selector of the VTR to "NTSC P.B".

- During Cue, Review, Still or Slow playback, the picture may not be in colour.

㉙ Slow Button (I►) (NV-G300EM)

REAR



① RF Output Socket

② Audio Input Socket

③ Video Input Socket

④ Audio Output Socket

⑤ Video Output Socket

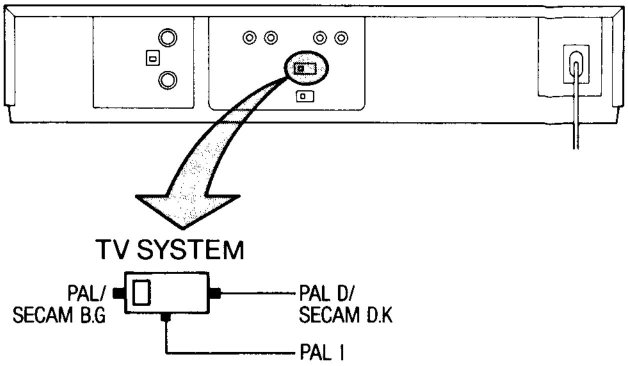
⑥ AC Mains Lead Socket

⑦ RF Signal Level Switch

⑧ RF Input Socket

⑨ Test Signal Switch

⑩ TV System Selector



TV System Selector

Set this selector to the "PAL/SECAM B•G", "PAL I" or "PAL D/SECAM D•K" position, depending on the type of PAL/SECAM colour system used for TV broadcasts in your area.

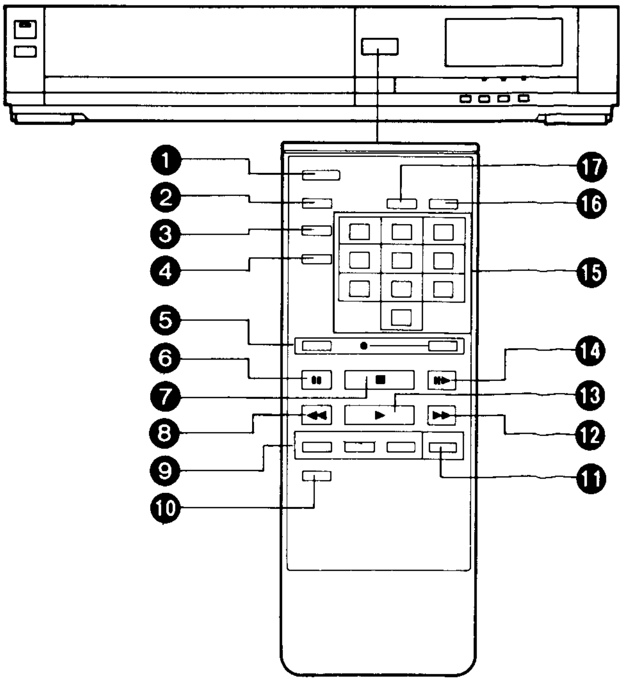
PAL-B•G: Continental Europe
PAL-I: U.K., etc.
PAL-D: China
SECAM B•G: Middle and Near East, East Germany
SECAM D•K: Eastern Europe, Russia

REMARK

For receiving NTSC broadcasts with the system selector set to "AUTO", set the TV System Selector to "PAL-B, G" position.

1-4. INFRA-RED REMOTE CONTROLLER

Part Number: VEQ0789 (NV-G50PX)
VEQ0701 (NV-G300EM)



❶ Power On/Off Button

❷ Clock/Counter Selector

❸ Memory/Search Lock Button

❹ Reset Button

❺ Record Buttons (●)

❻ Pause/Still Button (❚❚)

❼ Stop Button (■)

❽ Rewind ◀◀/Review ◀◀ Button

❾ Slow Buttons

❿ Reverse Play Button

⓫ Double Speed Playback Button (×2)

⓬ Fast Forward ▶▶/Cue ▶▶ Button

⓭ Play Button (▶)

⓮ Still Advance Button (❚❚▶)

⓯ Program Position Selector Buttons

(NV-G50PX)

Two buttons must be pressed to select a desired channel. Therefore, when selecting a channel position between 1 and 9, press the "0" Button first, and then press the desired channel number.

(NV-G300EM)

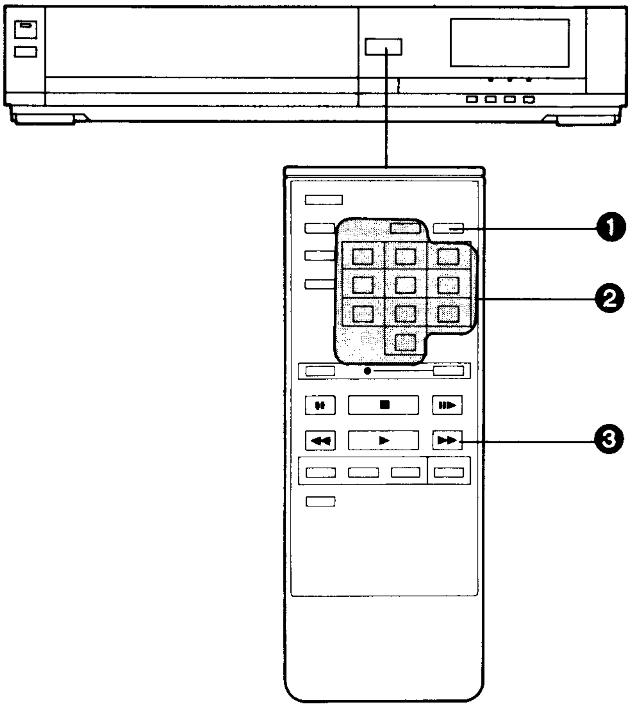
select channel		press button
1-9	1 — 9	respective channel
10	10/0	
20	-/-- → 2 → 10/0	
11-32 for example 32	-/-- → 3 → 2	

If more than 5 seconds pass between the first, second and third push, the channel will not be changed normally.

⓰ Time Search Button

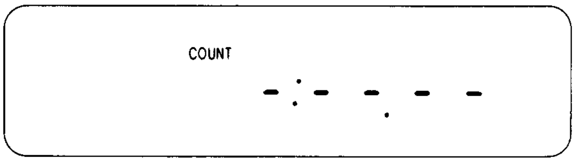
⓱ +/− Button

It is possible to locate the desired scene directly by inputting the hour, minute and second of that scene.

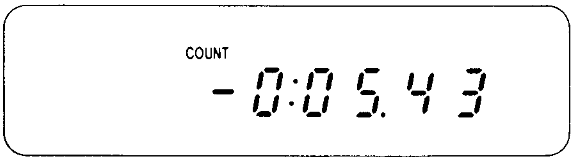


Put the VTR in Stop mode.

❶ Press the Time Search Button.
The indication in the Multi-Function Display changes as shown below.



❷ Input the time of the desired scene.
- The time is input by pressing the number buttons in the order: hour, minute, second.
- The "−" indication will be counted as "0".
- If you want to input an earlier time than "0:00.00", press the +/− Button so that the "−" indication appears ahead of the counter indication.



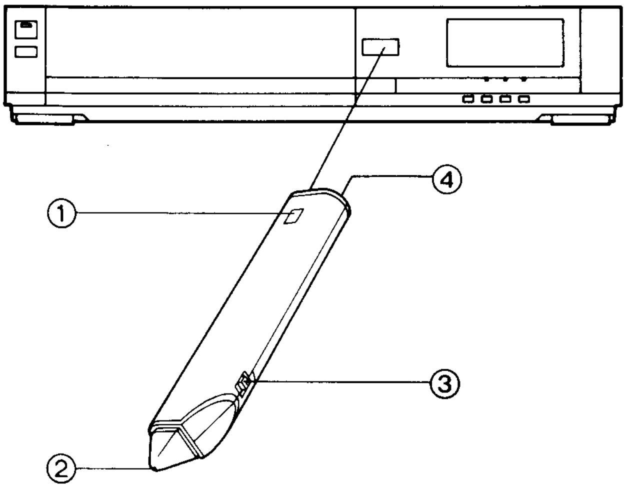
❸ Press the Fast Forward ▶▶/Cue ⏩ Button.

- The VTR automatically judges whether the tape should be fast-forward or rewound and performs the appropriate operation.
- When the designated time is reached, the playback starts.

> - The numbers in the Tape Counter do not change during parts of the tape on which there is no recording.
> - When the tape is ejected, the Tape Counter will automatically be reset to "0:00.00".

1-5. DIGITAL SCANNER

Part Number: VEQ0688 (NV-G50PX)
VEQ0653 (NV-G300EM)



① **Transmit Button**

② **Bar Code Reading Section**

③ **Digital Scanner On/Off Switch**

④ **Transmitting Section**

How to Operate the Digital Scanner

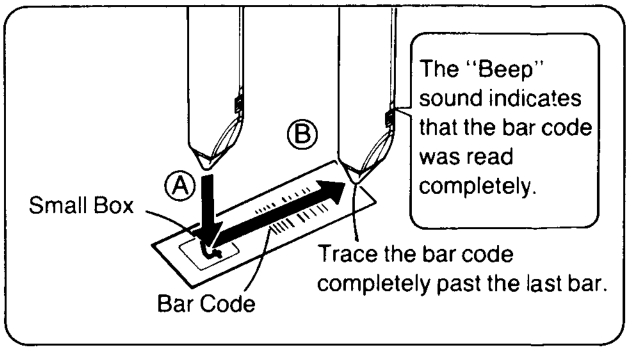
Set the Digital Scanner On/Off Switch to "ON".

- If no operation is performed for more than 25 seconds, the scanner will automatically switch over to the power-saving standby condition and the lamp will go off. (In this case, if bar codes have already been read but not yet transmitted to the VTR, the data will be cancelled.)
- When the Digital Scanner On/Off Switch is set to "ON" but the lamp is not lit, set the switch to "OFF" and then to "ON" again.

Tracing the Bar Codes

Ⓐ Place the Digital Scanner vertically on the Small Box.

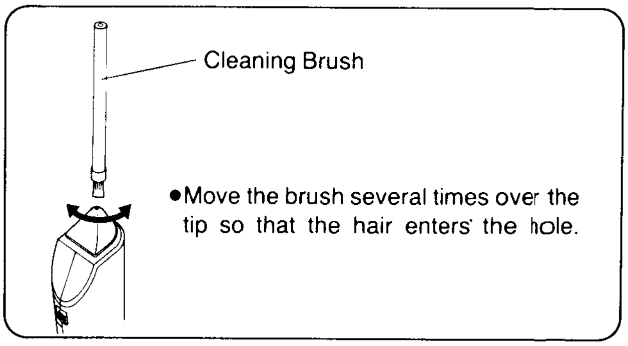
Ⓑ Trace the bar code quickly in the direction of the arrow.


The "Beep" sound indicates that the bar code was read completely.
Ⓑ
Ⓐ
Small Box
Trace the bar code completely past the last bar.
Bar Code

Cleaning Brush for the Digital Scanner

If the sensor in the tip of the Digital Scanner becomes clogged with dirt, it may become impossible to read the bar codes. Clean the tip from time to time with the supplied brush as illustrated below.

Keep this brush in the storage case of the Digital Scanner.



- Move the brush several times over the tip so that the hair enters the hole.

> - Treat the Programming Sheet with care. If the sheet gets dirty or scratched, the bar code reading may become impossible.
> - Protect the Digital Scanner from strong shocks and vibration. Keep it away from water and places with high temperature and humidity.
> - If the bar code is traced slowly, it cannot be read correctly.
> - When there is no "Beep" sound, the reading of the bar code is incomplete. Trace the bar code again.
> - When using the Programming Sheet, put it on flat surface. Reading the bar codes while holding it in your hand or bending it, may result in incorrect operation.
> - Do not deviate from the bar code, nor stop tracing halfway.
> - Do not slant the scanner to trace the bar code.

SECTION 2
ADJUSTMENT PROCEDURES

2-1. MECHANICAL ADJUSTMENT PROCEDURES

This Mechanical Chassis of this model is the same as the G Mechanical Chassis.
Therefore please refer to the Service Manual G Mechanical Chassis (Order No. VRD8701105).

Note:

(How To Set The Tracking Volume For Centre.)
When Interchange ability Adjustment is performed, Tracking Volume have to be set electrical centre as follows:

(1) Connect the jumper wire W163 as shown below.

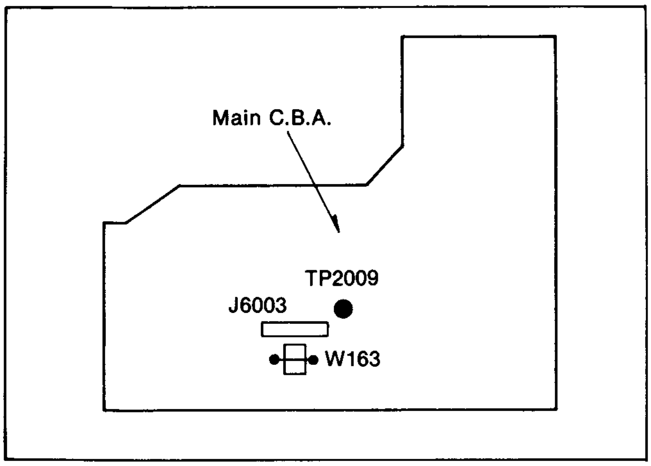

Main C.B.A.
TP2009
J6003
W163

Fig. M1

(2) Push the tracking volume (+) and (−) button togather. (tracking volume is set centre automatically).
(3) After adjusting, remove jumper wire W163.

2-2. DISASSEMBLY METHOD

2-2-1. DISASSEMBLY FLOW CHART

This flowchart indicates disassembly steps of the cabinet parts and the Circuit Boards in order to find the necessary items for servicing.
When reassembling, perform the steps in the reverse order.

Note:

When removing the Front Panel, be careful to avoid any damages for the locking portions of the panel.

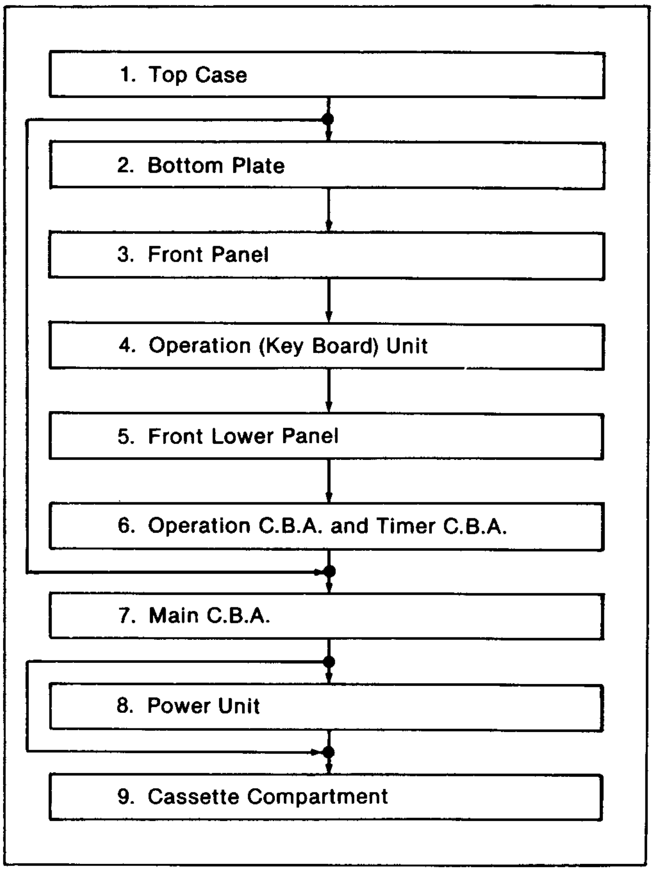

1. Top Case
2. Bottom Plate
3. Front Panel
4. Operation (Key Board) Unit
5. Front Lower Panel
6. Operation C.B.A. and Timer C.B.A.
7. Main C.B.A.
8. Power Unit
9. Cassette Compartment

Fig. D1

2-2-2. DETAIL OF DISASSEMBLY METHOD

1. Removal of the Top Case

Remove the 4 screws (A) then carefully lift the rear of the Top Case to remove.

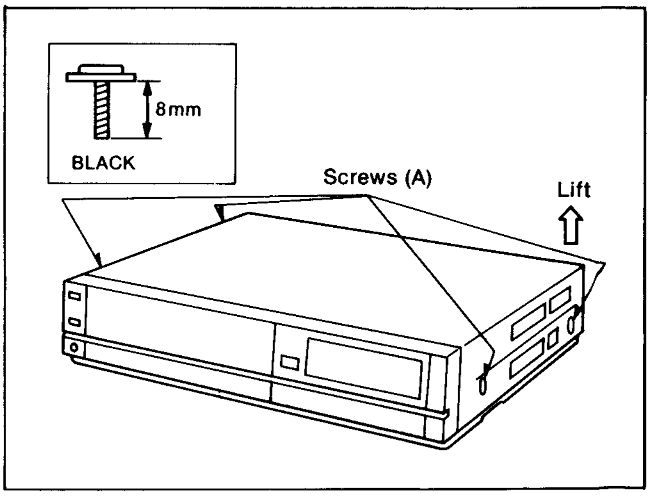

8mm
BLACK
Screws (A)
Lift

Fig. D2

2. Removal of the Bottom Plate

Place the deck upside down so that the bottom side faces upward.
Then remove the 8 screws (B).

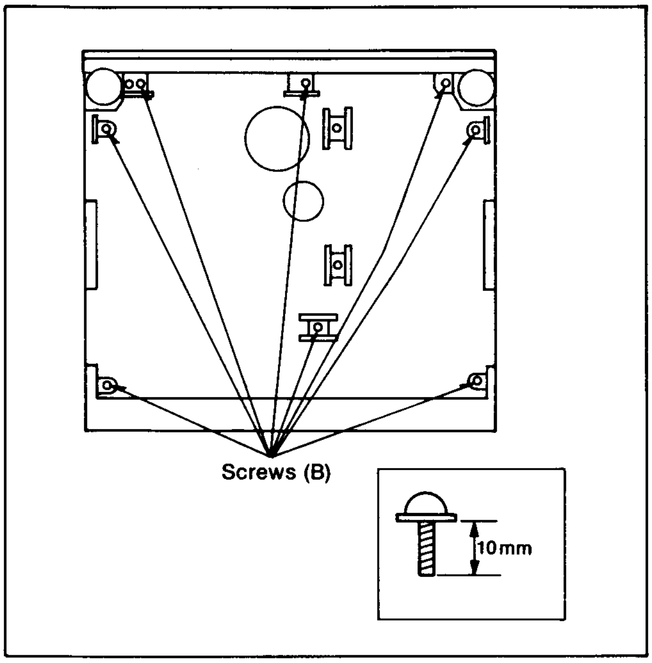

Screws (B)
10mm

Fig. D3

Note:
Place the cushion under the deck to avoid any damages.

3. Removal of the Front Panel

Open the Operation (key Board) Unit and remove the 3 screws (C) and unlock the 5 locking portions (D).
Then hold the top portion of the panel and turn it toward the front side of the deck to remove.

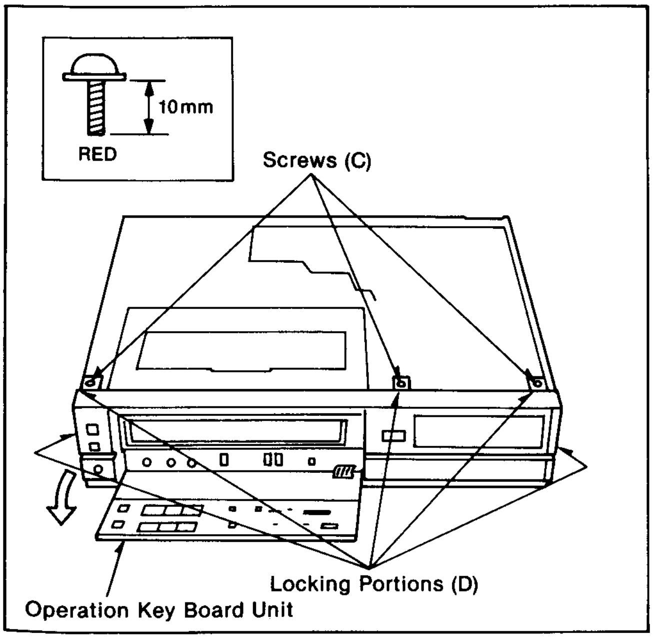

10mm
RED
Screws (C)
Locking Portions (D)
Operation Key Board Unit

Fig. D4

4. Removal of the Operation (key Board) Unit

Remove the 2 screws (E).
Disconnect the connector P7504(F) and remove the flexible wire.
Then carefully remove the Operation (key Board) Unit.

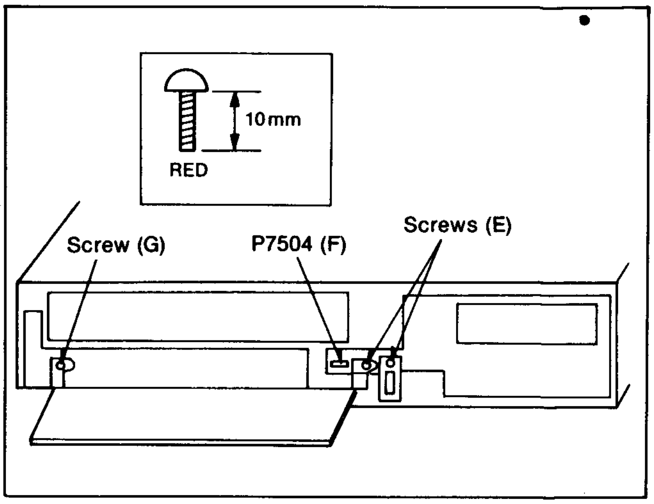

10mm
RED
Screw (G)
P7504 (F)
Screws (E)

Fig. D5

5. Removal of the Front Lower Panel.

Place the deck up side down so that the bottom side faces upward.
Then remove the 1 screw (G) and unlock the 3 locking portions (H).

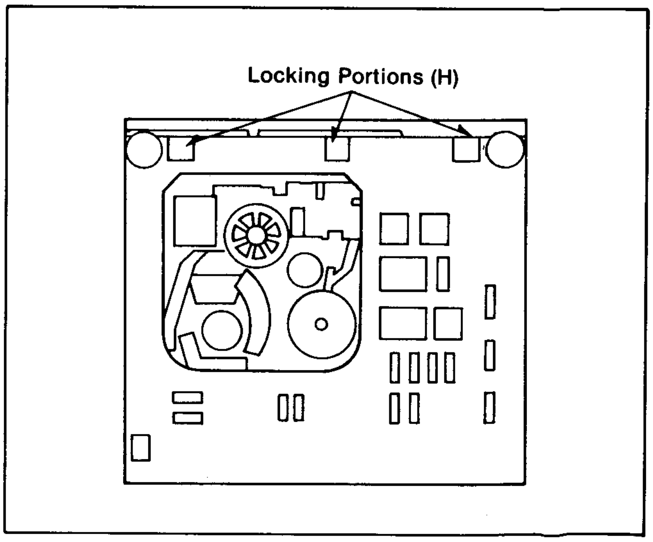

Locking Portions (H)

Fig. D6

Note:
Place the cushion under the deck to avoid any damages.

6. Removal of the Operation C.B.A. and Timer C.B.A.

   Remove the 4 screws (I) and unlock the 6 locking portions (J).

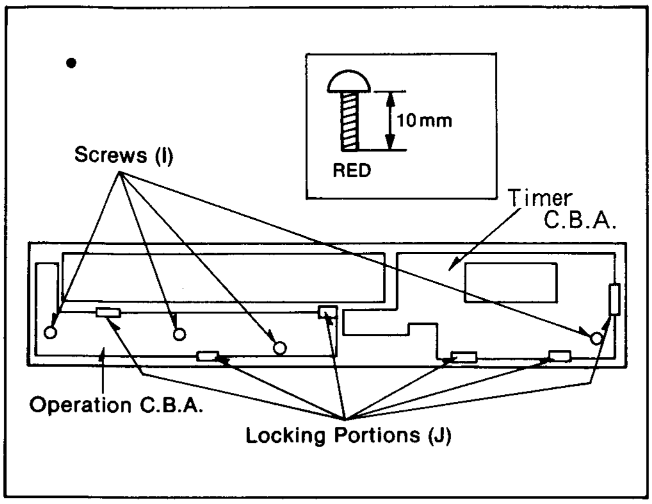

10mm
RED
Screws (I)
Timer C.B.A.
Operation C.B.A.
Locking Portions (J)

Fig. D7

7. Removal of the Main C.B.A.

   Remove the 9 screw (K) and C.B.Holder (L) take out the Main C.B.A. and 0.32H skew compensation C.B.A. Putting it up right position on the frame can be available as shown in Fig.D9.

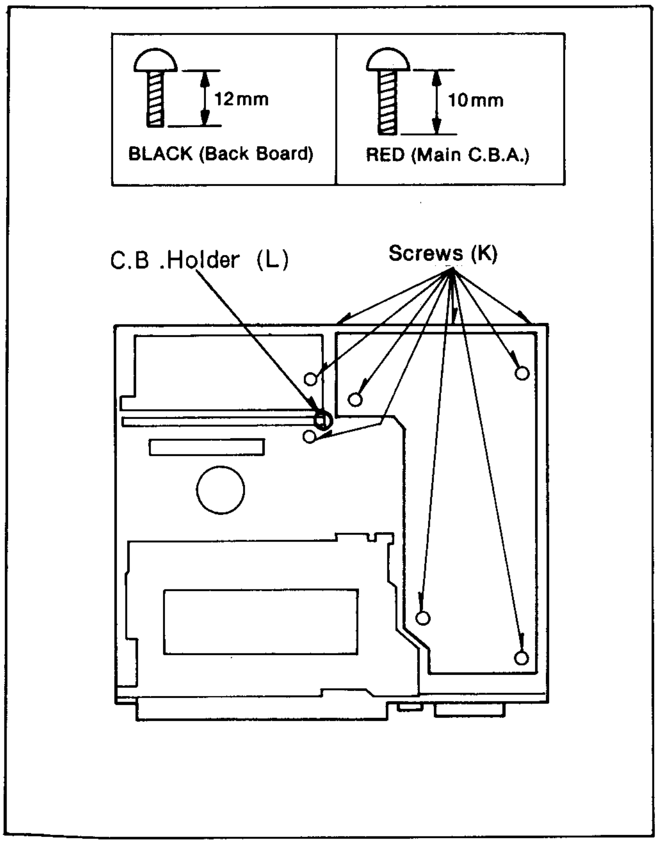

12mm
BLACK (Back Board)
10mm
RED (Main C.B.A.)
C.B .Holder (L)
Screws (K)

Fig. D8

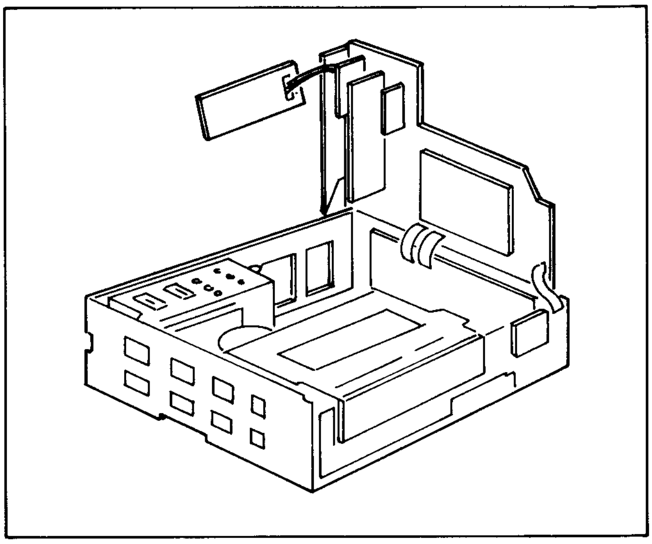


Fig. D9

8. Removal of Power Unit

   Remove the 3 screws (Z) and take it out from the frame.
   Remove the shield case then checking can be performed.

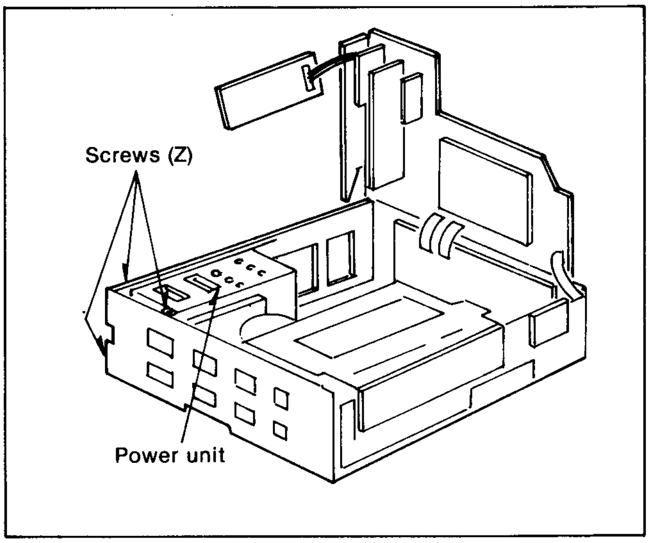

Screws (Z)
Power unit

Fig . D10

9. Remove of Cassette Compartment

   Remove 2 screws(M) and slide the cassette holder until appearing 2 screws(N) by turning(clockwise) the capstan rotor unit(located in the bottom side) and then remove 2 screws(N).
   Remove the flexible wire from connector P1503 mounted on Take-up photo Tr. C.B.A.,then carefully pull out the cassette compartment.

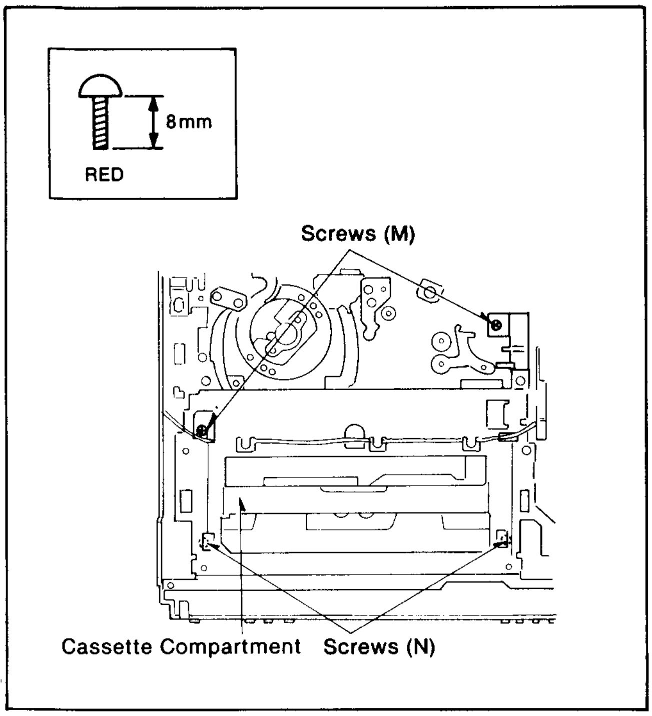

8mm
RED
Screws (M)
Cassette Compartment
Screws (N)

Fig. D11

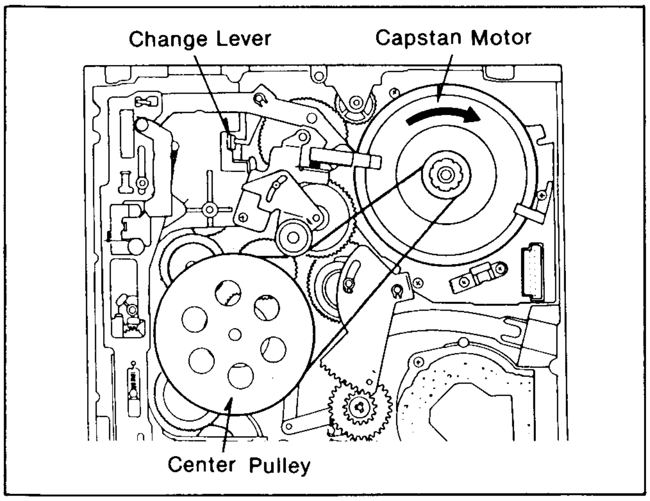

Change Lever
Capstan Motor
Center Pulley

Fig. D12

2-2-3. REINSTALLATION OF CASSETTE COMPARTMENT FROM STOP (FF/REW) POSITION

1. Set the mechanism condition to Stop (FF/REW) position by means of turning capstan motor (refer to 2–2–5.)
2. Remove the 2 screws (O) as shown in Fig.D13.

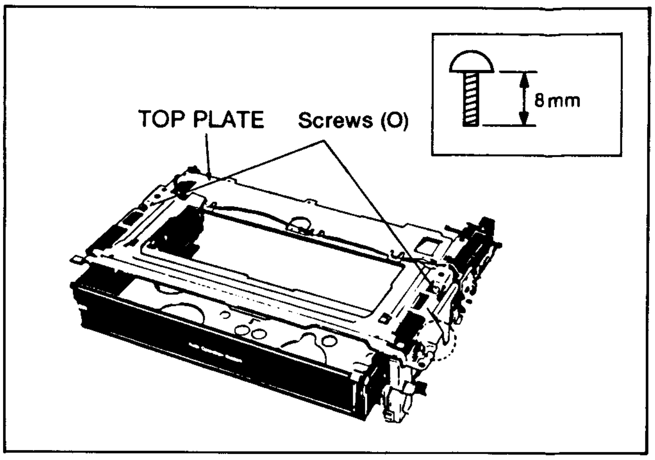

TOP PLATE
Screws (O)
8mm

Fig. D13

3. Take the top plate out.
4. Take the cassette Holder unit out as shown in Fig.D14.

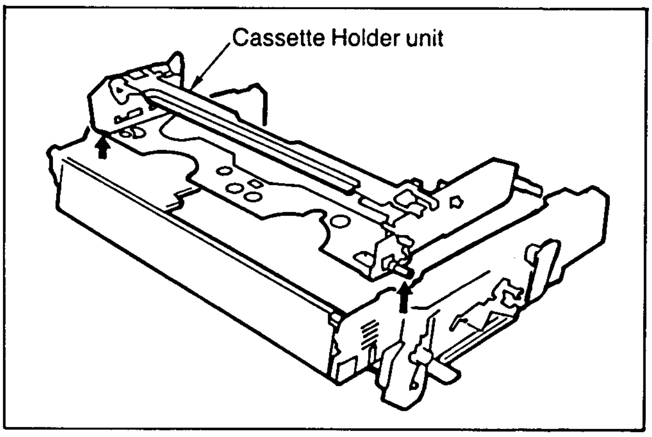

Cassette Holder unit

Fig. D14 Removal of cassette holder unit

5. Press the sub wiper arm (P) to direction indicated by arrow so that the sub wiper arm (P) comes to cassette down position completely as shown in Fig.D15. and keep it.

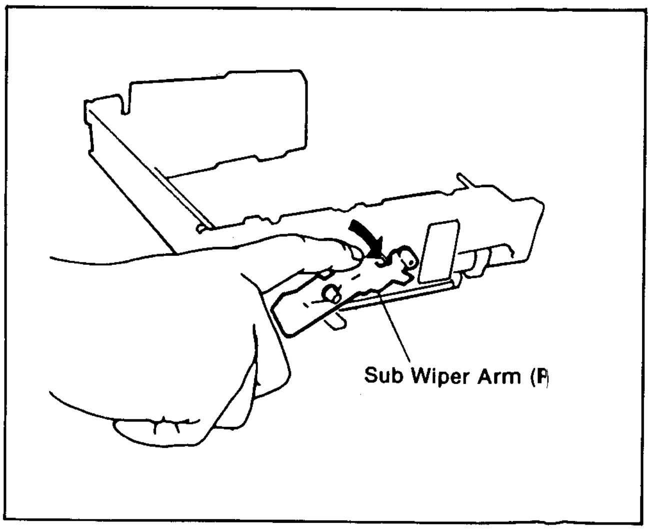

Sub Wiper Arm (P

Fig. D15

6. Reinstall the cassette compartment (Without Cassette Holder) to chassis so that the first tip of Rack Gear A (1) comes to Marking slot of connection gear as shown in Fig.D16.

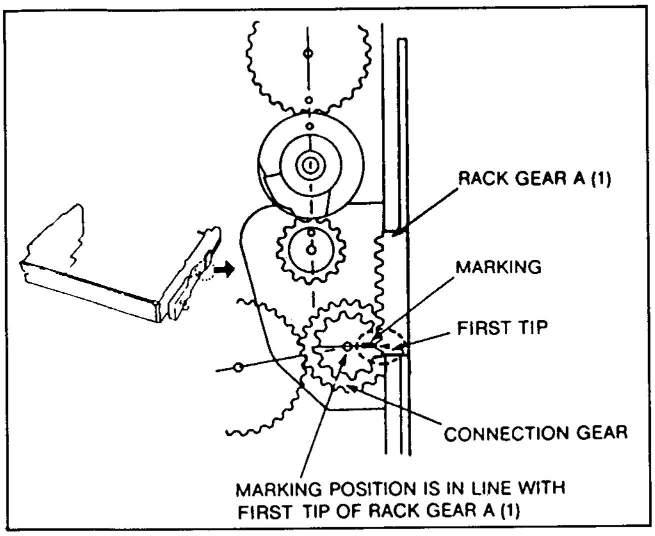

RACK GEAR A (1)
MARKING
FIRST TIP
CONNECTION GEAR
MARKING POSITION IS IN LINE WITH FIRST TIP OF RACK GEAR A (1)

Fig. D16

7. Tighten the 4 screws (Q) as shown in Fig.D17.

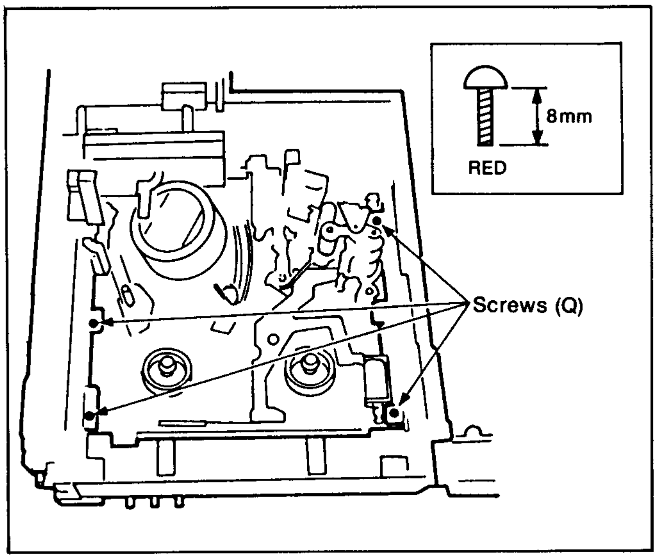

8mm
RED
Screws (Q)

Fig. D17

8. Press the change lever and turn the capstan motor counter clockwise until mechanism is placed to Eject position as shown in Fig.D18.
9. Reinstall the cassette holder unit as just the reverse way of item 4, Fig.D14.
10. Reinstall the top plate as just the reverse way of item 3, Fig.D13.

2-2-4. HOW TO EJECT MANUALLY

If the electrical circuit is defective and the action of unloading and front unloading don't work properly, it is possible to eject manually as follows.

(1) Take out the Main AC.
(2) Release the Change Lever by pushing it to arrow mark direction as shown in Fig.D18.
(3) Turn the capstan motor to counter clockwise slowly until the Clutch Disk is locked. (Clutch Disk is locked once in one rotation)
(4) Release the Change Lever again when the Cluch Disk is locked.
(5) Repeat the (2) and (3) until cassette is ejected.

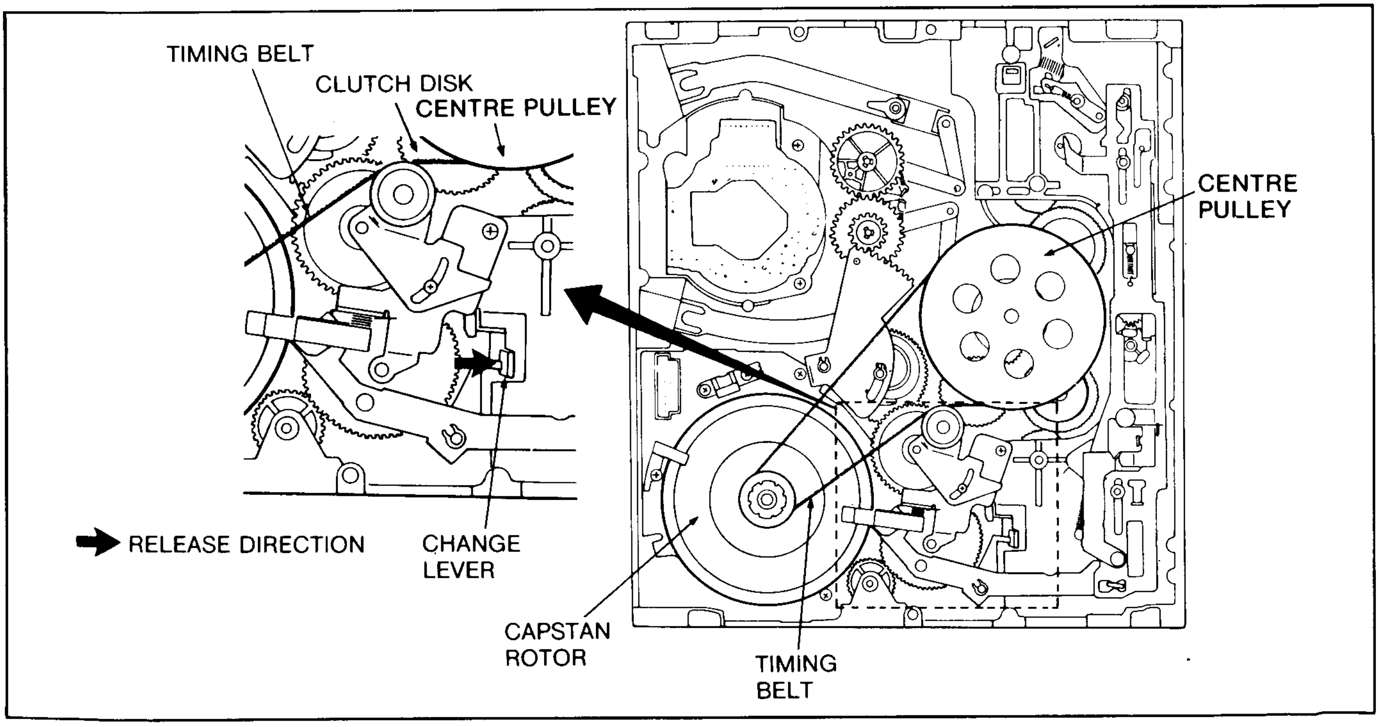

TIMING BELT
CLUTCH DISK
CENTRE PULLEY
RELEASE DIRECTION
CHANGE LEVER
CAPSTAN ROTOR
TIMING BELT
CENTRE PULLEY

Fig. D18

2-2-5. HOW TO SEE THE MOVEMENT OF MECHANISM WITHOUT CASSETTE COMPARTMENT

Since capstan motor works as loading motor and front loading motor, Phase relationship between cassette compartment and mechanism is important, so Playback and FF/REW can not be performed even just only taking out the cassette compartment, however, if you want to see the mechanical movement without cassette compartment, it is possible as follows.

1. Take out the Main AC.
2. Take out the 5 pin flexible cable from P1503 on the cassette compartment and remove the cassette compartment from chassis.
   Set the Mechanism to stop (FF/REW) mode as following items 3.,4.,5.,6.
3. Release the change lever by pussing it to arrow mark direction as shown in Fig.D18.
4. Turn the capstan motor to clockwise until the Clutch Disk is locked.
   (Clutch Disk is locked once in one rotation)
5. Release the change lever again when Clutch Disk is locked.
6. Repeat item 4 and 5 until mechanism come to stop (sub loading) position as shown in Fig.D19.
   (STOP position is same as FF/REW position, therfore, when you rotate the capstan motor in STOP position, supply or Take up reel table is rotated corresponding with direction of rotation)
7. Turn the power on.
8. Now, any operation can be performed without cassette compartment.

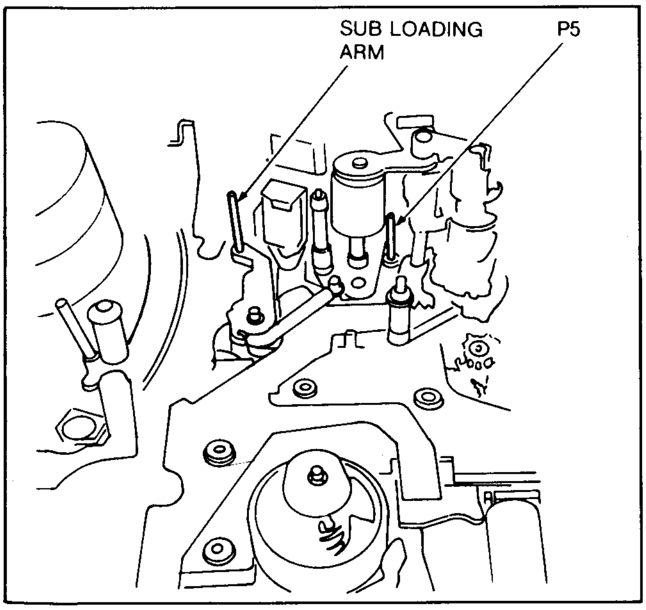


Fig. D19

Note:

1) Don't add the large torque to any gears not to break it.
2) When reinstalling the cassette compartment, refer to 2–2–3 Reinstallation of Cassette Compartment.
3) It is not possible to operate the mechanism from Eject position.

2-3. REPLACEMENT OF THE CYLINDER UNIT

2-3-1. REPLACEMENT OF THE D.D. CYLINDER UNIT

Work with extreme care when removing or replacing the D.D. cylinder unit.
Do not touch the video head during servicing.

1. Remove the 2 screws (R) to take the Head Amp Pack Out.
2. Remove the 1 screw (S) to take the Earth Holder Unit Out.
3. Disconnect the 5P connector on the cylinder drive C.B.A.

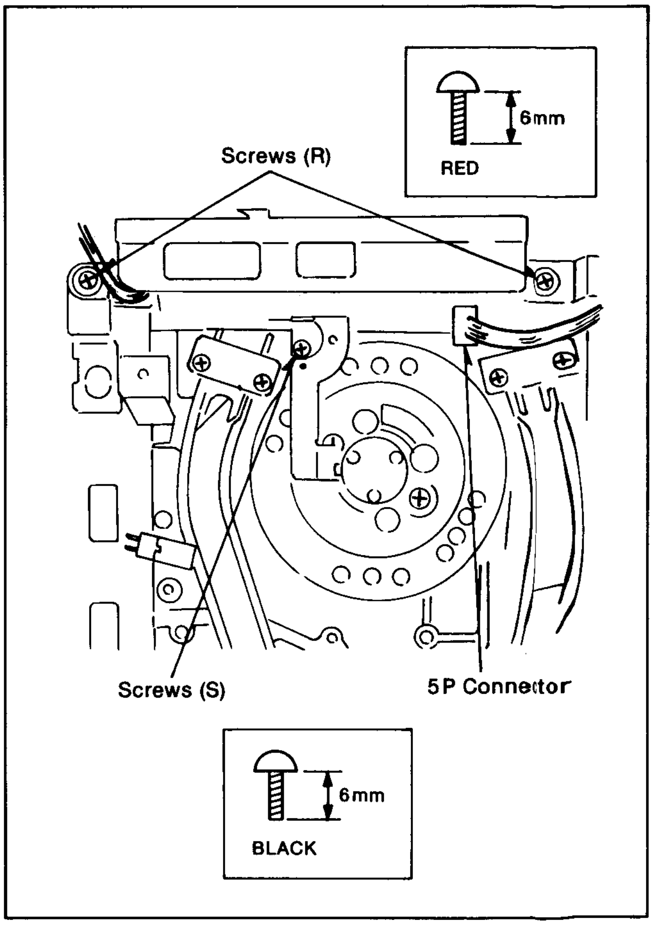


Fig. D20

4. Remove the 3 screws (T) to take the D.D. cylinder unit (with the cylinder drive C.B.A.) out.

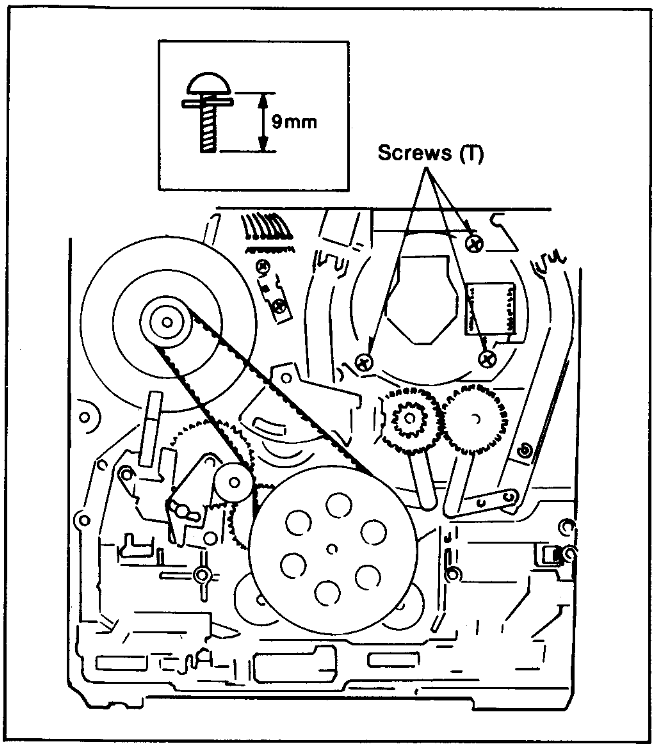


Fig. D21

Note:
Since there is very little clearance between the D.D. cylinder unit and the chassis, remove the D.D. cylinder unit gently and carefully.

5. Reinstall the new D.D. Cylinder Unit, tighten the 3 screws (T) and reinstall the Earth Holder Unit, tighten the 1 screw (S).
Then reconnect the Head Amp pack and 5P connector and tighten 2 screws (R).

Note:
(1) Gently rub the video head in direction of tape travel with Head cleaning stick.
(2) After replacement, confirm the performance.
If any further maintenance is required, perform "TAPE INTER-CHANGE ABILITY ADJUSTMENT".

2-3-2. REPLACEMENT OF THE CYLINDER DRIVE C.B.A.

1. Remove the D.D. cylinder unit referring the Item 2-3-1.
2. Place the D.D. cylinder unit upside down.
3. Unsolder the solderd portion (V) for shield case to take it out.
4. Unsolder the 18 soldered portions (U) indicated by an arrow wark (including 10 soldered portions inside of shield case).
5. Remove the 2 screws (W) to remove the cylinder drive C.B.A. unit.

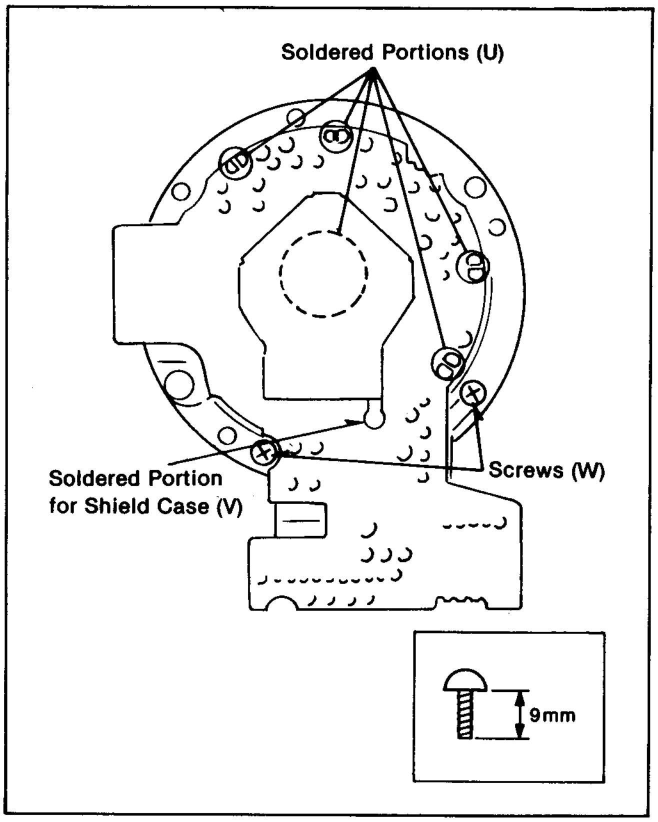


Fig. D22

6. Reinstalling is just reverse way of above procedures.

2-3-3. REPLACEMENT OF THE CYLINDER DRIVE IC

1. Remove the Cylinder Drive C.B.A. as item 2-3-2.
2. Remove the screw (X) to take the heat sink Plate out.
3. Unsolder the 18 soldered portions of the Cylinder Drive IC to take it out.
4. Reinstall the New IC with the care of Pins location.
5. Re-solder the 18 pins of the Cylinder Drive IC.
6. Reinstall the Cylinder Drive C.B.A. to the D.D.

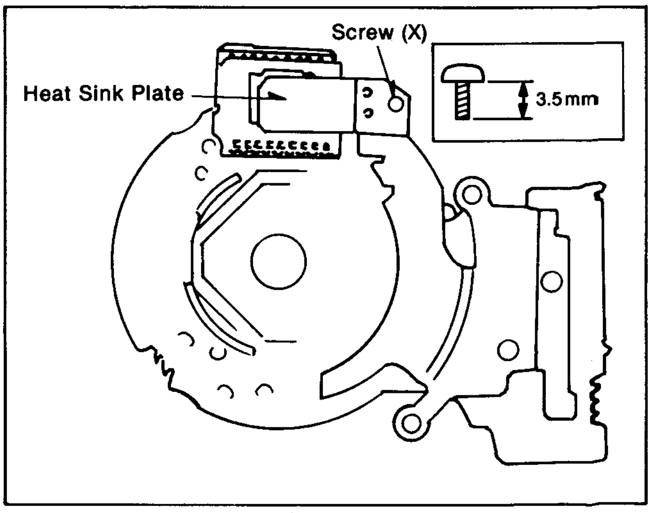
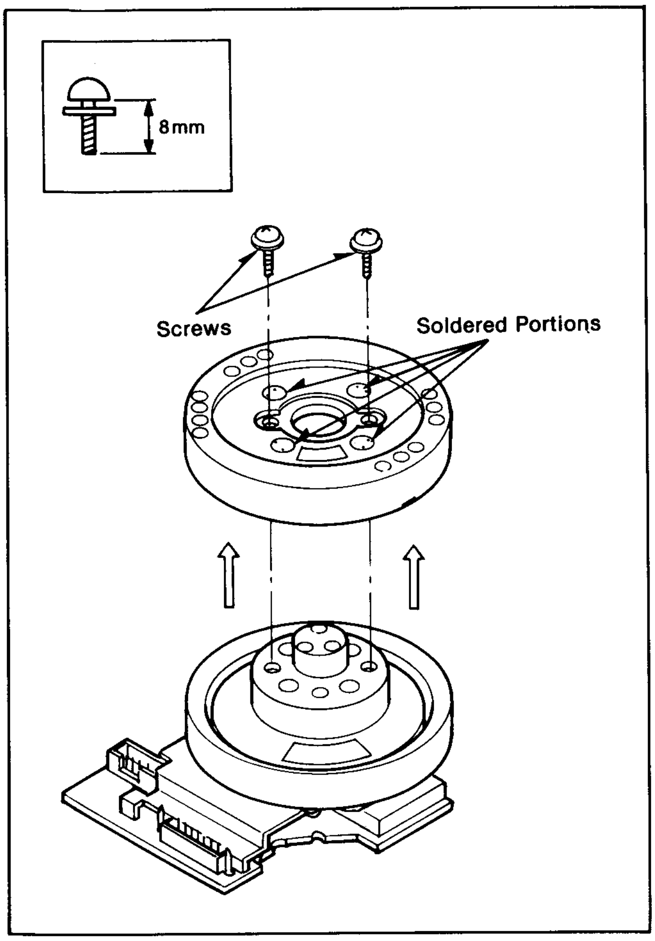


Fig. D23

2-3-4. REPLACEMENT OF THE UPPER CYLINDER UNIT

1. Remove two screws as shown below.
2. Unsolder 8 soldered portions indicated by arrows on the C. Board.
3. Remove the Upper Cylinder Unit by lifting it upward.

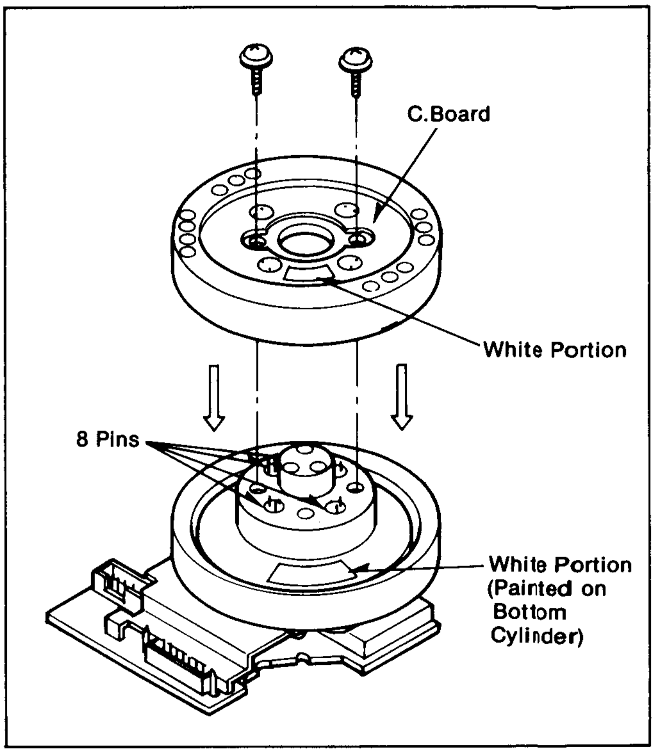
Note:
Soldered portion can be easily removed by using solder sucking wire, etc.



8mm
Screws
Soldered Portions

Fig. D24

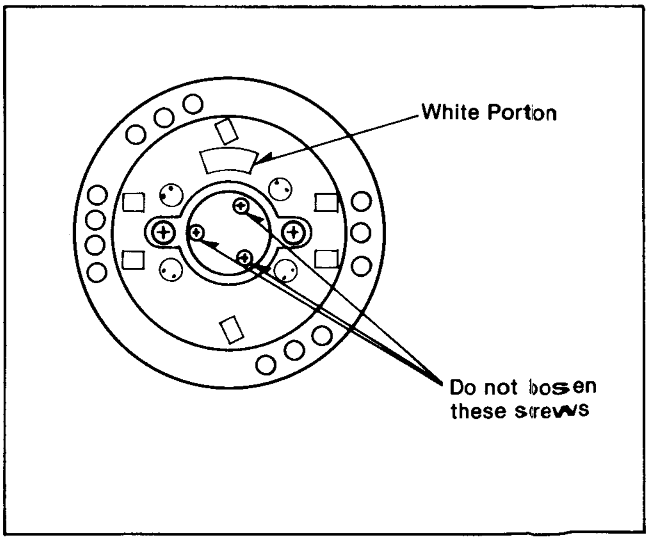
4. The upper cylinder unit can be reinstalled by reversing the removal procedure, however, when the upper cylinder is reinstalling, be extremely carefull so that white portion of C. Board of the upper cylinder correctly matches the white portion of the bottom cylinder as shown below.



C.Board
White Portion
8 Pins
White Portion (Painted on Bottom Cylinder)

Fig. D25

Note:
1). If the Upper Cylinder Unit is reversely installed, no colour would appear when playing back a pre-recorded tape.
2). Do not loosen the 3 small screws on the top of the cylinder as shown below. If these 3 screws are loosend, Cylinder motor is broken and not restored.



White Portion
Do not loosen these screws

Fig. D26

2-4. ELECTRICAL ADJUSTMENT PROCEDURES

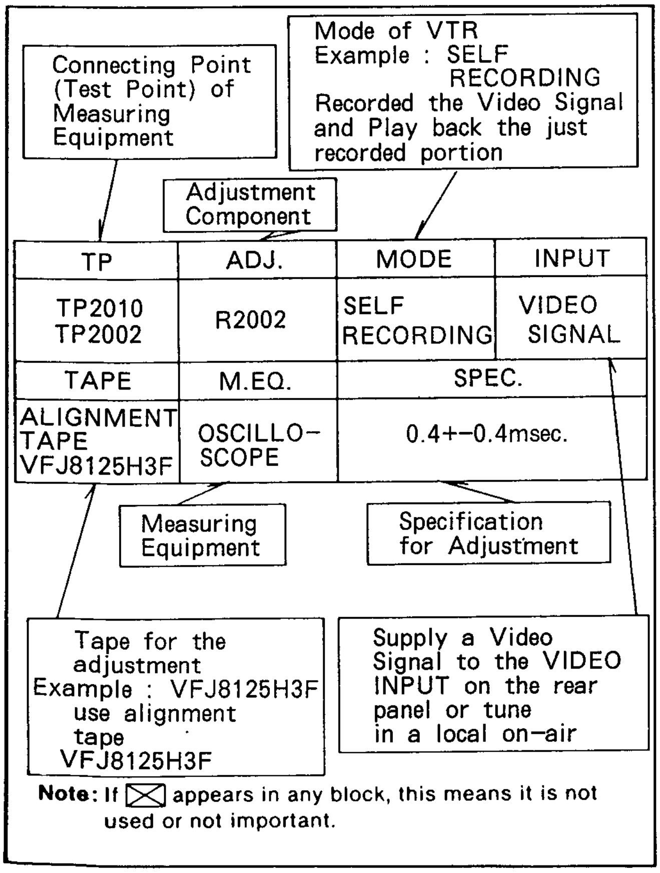
This section provides complete electrial adjustment procedures which may be required for electronic circuits of VHS Video Cassette Recorder NV-G50PX/NV-G300EM.

2-4-1. TEST EQUIPMENT

To perform the electrical adjustments completely, following equipments are required.

1. VTVM (Vacuum Tube Volt Meter) or DVM (Digital Volt Meter)
   Voltage Range: 0.001~50V
2. Dual-Trace Oscilloscope
   Voltage Range: 0.005~50V/div
   Frequency Range: 0~30MHz
   Probes: 10:1 or 1:1
3. Frequency Counter
   Frequency Range: 0~10MHz
4. Signal Generator (Sinewave)
   Frequency Range: 0~5MHz
5. Video Sweep Generator
   Frequency Range: 0~10MHz
6. Colour Monitor TV
7. Plastic Tip Driver
8. VHS Alignment Tape (VFJ8125H3F: PAL)
   (VFM8080HMFPH: NTSC)

2-4-2. HOW TO READ THE ADJUSTMENT PROCEDURES


Connecting Point (Test Point) of Measuring Equipment
Mode of VTR
Example : SELF RECORDING
Recorded the Video Signal and Play back the just recorded portion
Adjustment Component
Measuring Equipment
Specification for Adjustment
Tape for the adjustment
Example : VFJ8125H3F use alignment tape VFJ8125H3F
Supply a Video Signal to the VIDEO INPUT on the rear panel or tune in a local on-air

TP	ADJ.	MODE	INPUT
TP2010 TP2002	R2002	SELF RECORDING	VIDEO SIGNAL
TAPE	M.EQ.	SPEC.	
ALIGNMENT TAPE VFJ8125H3F	OSCILLO-SCOPE	0.4+−0.4msec.	

Note: If ☒ appears in any block, this means it is not used or not important.

Fig. E1

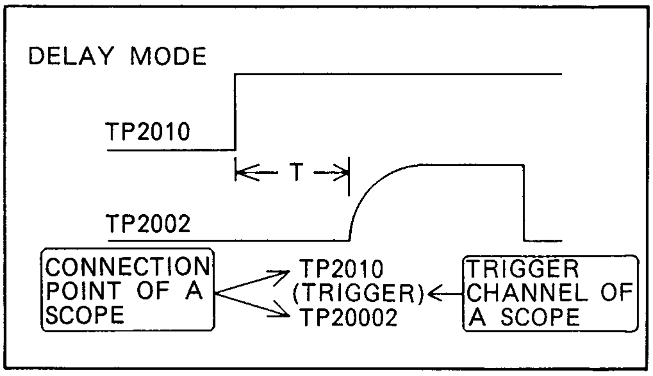

DELAY MODE
TP2010
T
TP2002
CONNECTION POINT OF A SCOPE
TP2010
(TRIGGER)
TP20002
TRIGGER CHANNEL OF A SCOPE

Fig. E2

SERVO SECTION

2-4-3. PG SHIFTER ADJUSTMENT (PAL SP MODE)

TP	ADJ.	MODE	INPUT
TP3002 TP2001	VR2001P	PLAY	☒
TAPE	**M. EQ.**	**SPEC.**	
ALIGNMENT TAPE (VFJ8125H3F)	OSCILLO-SCOPE	6.5±0.5H	

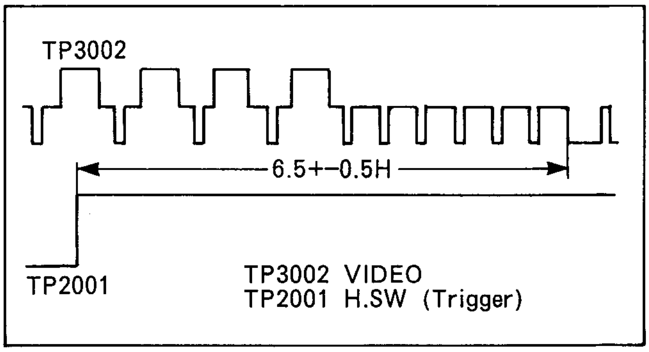

TP3002
6.5+−0.5H
TP2001
TP3002 VIDEO
TP2001 H.SW (Trigger)

Fig. E3

2-4-4. PG SHIFTER ADJUSTMENT (NTSC)

TP	ADJ.	MODE	INPUT
TP3002 TP2001	VR2001N	PLAY	☒
TAPE	**M. EQ.**	**SPEC.**	
ALIGNMENT TAPE VFM8080HMFPH	OSCILLO-SCOPE	6.5±0.5H	

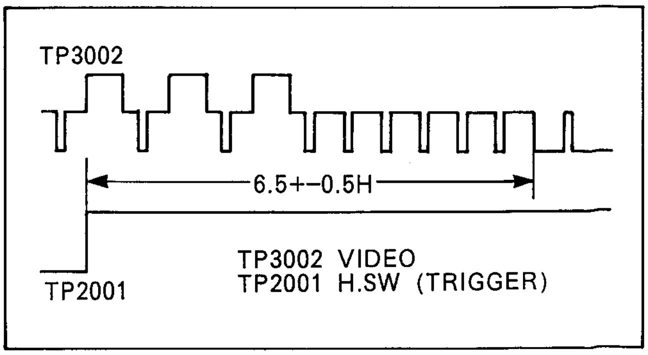
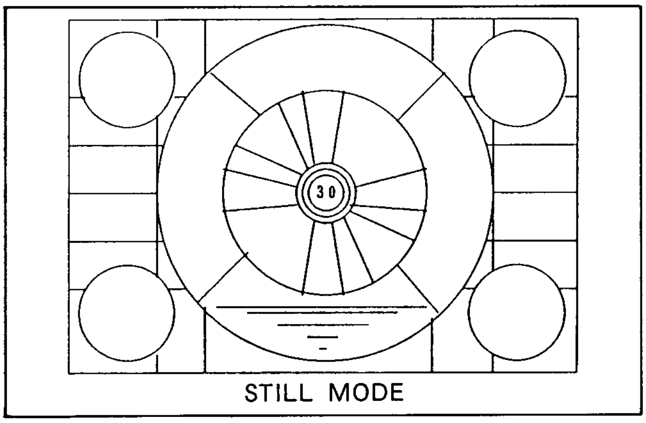

TP3002
6.5+−0.5H
TP2001
TP3002 VIDEO
TP2001 H.SW (TRIGGER)

Fig. E4

2-4-5. ARTIFICIAL V-SYNC ADJUSTMENT

TP	ADJ.	MODE	INPUT
	VR3502 (PAL SP) VR3501 (PAL LP: NV-G50PX ONLY)	SELF RECORDING	PAL VIDEO SIGNAL
	VR3503 (NTSC SP) VR3501 (NTSC SLP)		NTSC VIDEO SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	TV MONITOR		

1. Play back the just recorded portion (PAL SP, NTSC SP & NTSC SLP SIGNAL) and place the deck in STILL mode.
2. Adjust the VR3502 (for PAL SP) so that V-dancing does not appear on the TV monitor. (during PAL SP STILL mode).
   Adjust the VR3503 (for NTSC SP) so that V-dancing does not appear on the TV monitor (during NTSC SP STILL mode)
   Adjust the VR3501 (for PAL LP) so that V-dancing does not appear on the TV monitor (during PAL LP STILL mode)(NV-G50PX ONLY).
   Adjust the VR3501 (for NTSC SLP) so that V-dancing does not appear on the TV monitor (during NTSC SLP STILL mode)



STILL MODE

Fig. E5

2-4-6. SLOW TRACKING FIX ADJUSTMENT

TP	ADJ.	MODE	INPUT
	VR2011 (PAL SP) VR2006 (PAL LP: NV-G50PX ONLY)	SELF RECORDING	PAL VIDEO SIGNAL
	VR2020 (NTSC SP) VR2021 (NTSC SLP) VR2022 (NTSC LP)		NTSC VIDEO SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	TV MONITOR		

1. Record the PAL video signal and playback just recorded portion.
2. Place the deck in SLOW mode.
3. Press the tracking volume (+) and (−) bottons together in order to set the slow tracking fix position.
4. Adjust the VR2011 (PAL SP mode) so that noise disappear on TV screen.
5. By the same way, adjust the VR2020 (NTSC SP mode) and VR2021 (NTSC SLP mode: NV−G50PX only) so that noise disappear on TV screen.
6. In the case of NTSC (LP) and NTSC (SLP)(NV−G300EM ONLY) use pre−recorded tape (which was recorded by other NTSC VTR equipped with LP/SLP function), then by the same way, adjust the VR2022 and VR2021 (NV−G300EM only) so that noise disappear on TV screen.
7. After adjusting, comfirm that the position of tracking become intermediate portion between the point of noise appearance when tracking (+) botton is pressed and when tracking (−) botton is pressed.

2-4-7. SLOW FREE RUN ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP2015	VR2013	STILL	
TAPE	**M. EQ.**	**SPEC.**	
PAL SP TAPE	FREQUENCY COUNTER	453 Hz ± 15 Hz	

1. Connect the jumper wire between TP2026 and GND.
2. Play back the PAL SP TAPE and place the STILL mode.
3. Connect the frequency counter to TP2015
4. Adjust the VR2013 so that frequency is 453Hz+−15Hz.

2-4-8. AUTO TRACKING GAIN ADJUSTMENT

TP	ADJ.	MODE	INPUT
IC3002-6	VR3003	STOP	CW SIGNAL 4MHz, 200mVp-p at TP3001
TAPE	**M. EQ.**	**SPEC.**	
	D.V.M	3.0 ± 0.1 V	

1. Set the SWEEP GENERATOR to CW mode.
2. Adjust CW frequency to 4MHz, 200mVp-p.
3. Supply the 4MHz, 200mVp−p to TP3001.
4. Adjust VR3003 so that the voltage at IC3002−6 become 3.0+−0.1V.

LUMINANCE, CHROMINANCE & HEAD AMP SECTION

2-4-9. CHROMA REC CURRENT ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP503 (HOT) TP504 (GND)	VR8001 (PAL) VR8010 (3.58 NTSC: NV-G50PX ONLY)	RECORDING	PAL/ 3.58 NTSC COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	32±3mVp-p (PAL) 44±3mVp-p (3.58 NTSC) 32±3mVp-p (SECAM)	

1. Supply the PAL colour bar signal to VTR.
2. Set the system switch for "AUTO" position.
3. Connect the osilloscope to TP503 (HOT) and TP504 (GND).
4. Connect the jumper wire between P502-2 and GND (on Head Amp C.B.A.).
5. Place the VTR to recording mode.
6. Adjust the VR8001(PAL) so that chroma level (A) become 32+-3mVp-p.

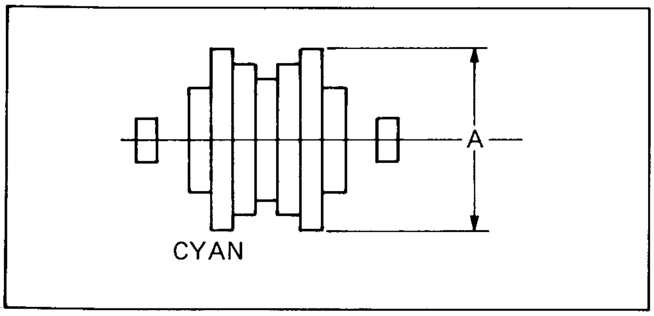


Fig. E6

7. Supply the 3.58 NTSC colour bar signal to VTR. (NV-G50PX only)
8. By the same way, adjust the VR8010 so that chroma level (A) become 44mV+-3mVp-p. (NV-G50PX only)

2-4-10. VIDEO REC CURRENT ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP503 (HOT) TP504 (GND)	VR501 (PAL)	RECORDING	VIDEO SIGNAL (PAL)
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	130mV±5mVp-p	

1. Supply the PAL colour bar signal to VTR.
2. Set the system switch for AUTO position.
3. Place the VTR in recording mode.
4. Connect the oscilloscope to TP503 (HOT) and TP504 (GND).
5. Adjust the VR501 so that video level becomes 130mV+-5mVp-p.

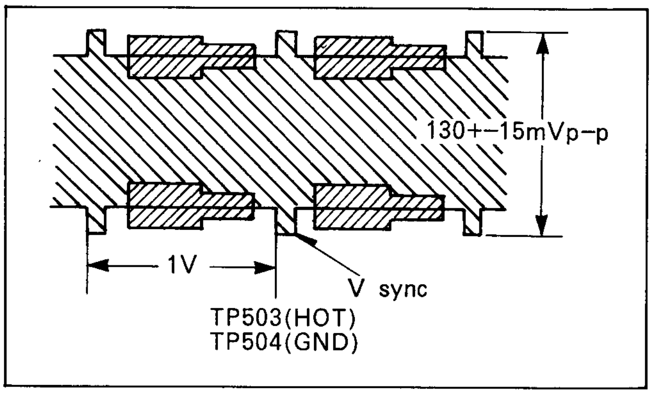


Fig. E7

2-4-11. PLAY BACK CHROMA LEVEL

TP	ADJ.	MODE	INPUT
VIDEO OUT (TP3002)	VR8008 (PAL)	SELF RECORDING	PAL COLOUR BAR SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	0.55V±0.05Vp-p (PAL)	

1. Set the system switch to "AUTO" position.
2. Record the PAL colour bar signal.
3. Play back just recorded portion.
4. Adjust the VR8008 so that cyan level become 0.55V+-0.05Vp-p.

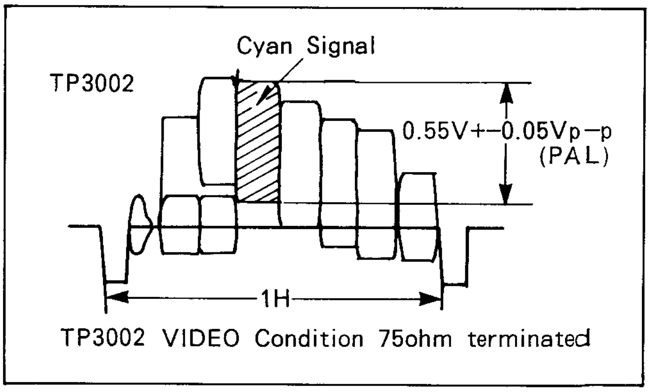


Fig. E8

2-4-12. LINE NOISE CANCELLER ADJUSTMENT

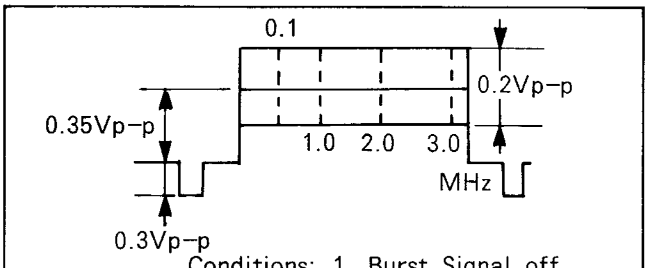
TP	ADJ.	MODE	INPUT
C322 (+) SIDE	VR301	SELF RECORDING	PAL COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	WAVEFORM IS MINIMIZED	

1. Record the PAL colour bar signal.
2. Connect the oscilloscope to C322 (+) side.
3. Playback the just recorded portion.
4. Adjust the VR301 so that the waveform is minimized.

2-4-13. VIDEO FREQUENCY RESPONCE ADJUSTMENT

TP	ADJ.	MODE	INPUT
VIDEO OUT (TP3002)	VR3012 (SP) VR3013 (LP: NV-G50PX ONLY)	SELF RECORDING	PAL VIDEO SWEEP
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	VIDEO SWEEP/ OSCILLO-SCOPE		

1. Set the sweep generator output as shown below.


0.1
0.2Vp−p
0.35Vp−p
1.0 2.0 3.0
MHz
0.3Vp−p

Conditions: 1. Burst Signal off.
2. 75ohm terminated.

Fig. E9

2. Set the system switch to "AUTO" and Edit switch to "OFF".
3. Record the above signal with SP mode.
4. Play back the just recorded portion with the Edit switch "OFF" position.
5. Adjust the VR3012 so that the level at 2.0MHz become 0+−1 dB comparing with level at 0dB.

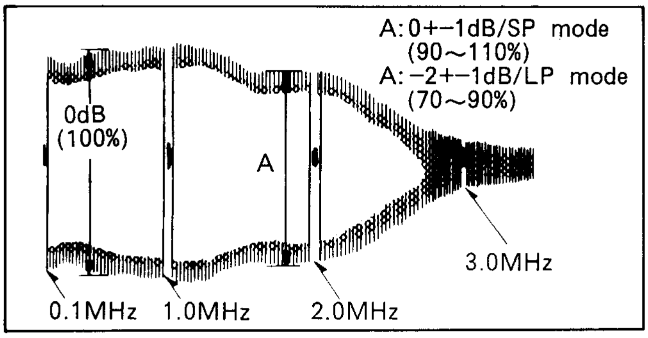

A: 0+−1dB/SP mode
(90∼110%)
A: −2+−1dB/LP mode
(70∼90%)
0dB
(100%)
A
3.0MHz
0.1MHz
1.0MHz
2.0MHz

Fig. E10

6. Record the above sweep signal with LP mode. (NV−G50PX only)
7. Play back the just recorded portion with Edit switch "OFF" position.(NV−G50PX only)
8. Adjust the VR3013 so that the level at 2.0MHz become −2+−1dB comparing with level at 0dB. (NV−G50PX only)

2-4-14. SECAM KILLER ADJUSTMENT

TP	ADJ.	MODE	INPUT
IC851-⑪	T851	RECORDING	SECAM VIDEO SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE		

1. Adjust T851 so that points "A" becomes maximum on the waveform.

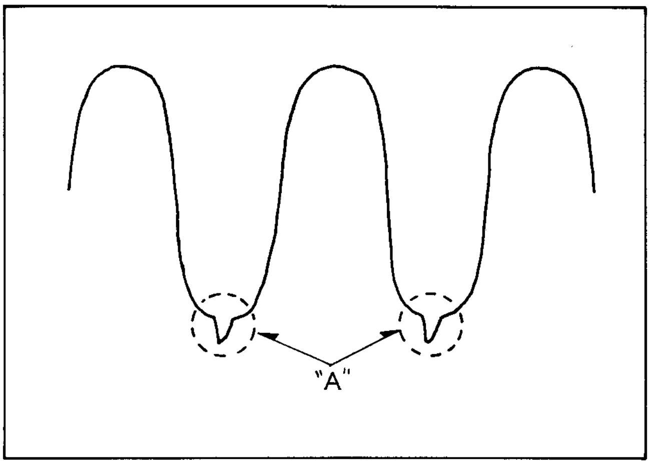


Fig. E11

2-4-15. 0.32H SKEW COMPENSATION DELAY SIDE CHROMA LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP3002	VR3801	CUE	NTSC MONO SCOPE PATERN
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE		

1. Supply NTSC monoscope patern to VTR.
2. Record the NTSC monoscope patern with SP mode.
3. Connect the oscilloscope to TP3002.
4. Play back just recorded portion and place the VTR to "CUE" mode.
5. Adjust the VR3801 so that the level of delay side become equal to normal side (so that waveform become flat).

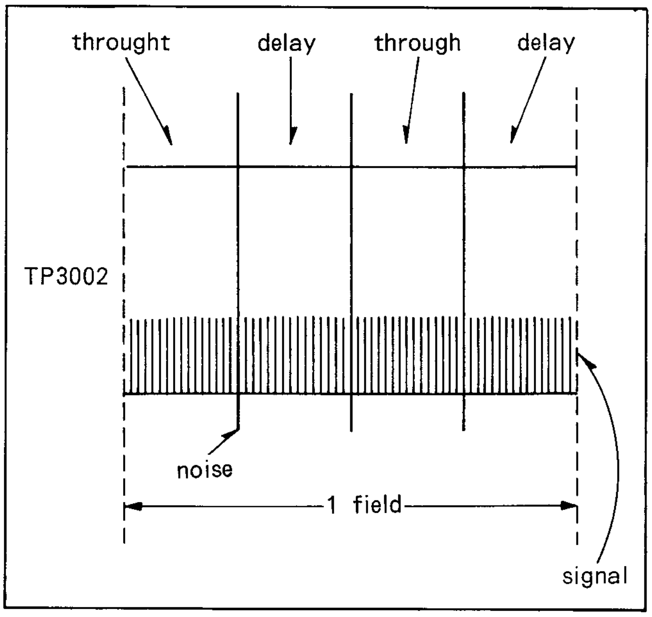

throught
delay
through
delay
TP3002
noise
1 field
signal

Fig. E12

2-4-16. 0.32H SKEW COMPENSATION DELAY SIDE CHROMA LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP3002	VR3802	STILL	NTSC COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	LEVEL CHANGE IS MINIMIZED	

1. Supply NTSC Colour bar to VTR with SP mode.
2. Playback just recorded portion with "4.43MHz NTSC (NV–G300EM)/3.58MHz NTSC (NV–G50PX)" mode and place the VTR to STILL mode.
3. Connect the oscilloscope to TP3002.
4. Adjust the VR3802 so that level change of chroma signal is minimized.

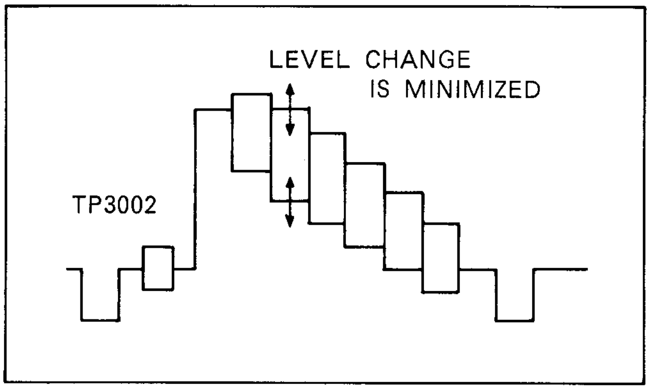

LEVEL CHANGE IS MINIMIZED
TP3002

Fig. E13

2-4-17. HD PULSE ADJUSTMENT (NV-G300EM ONLY)

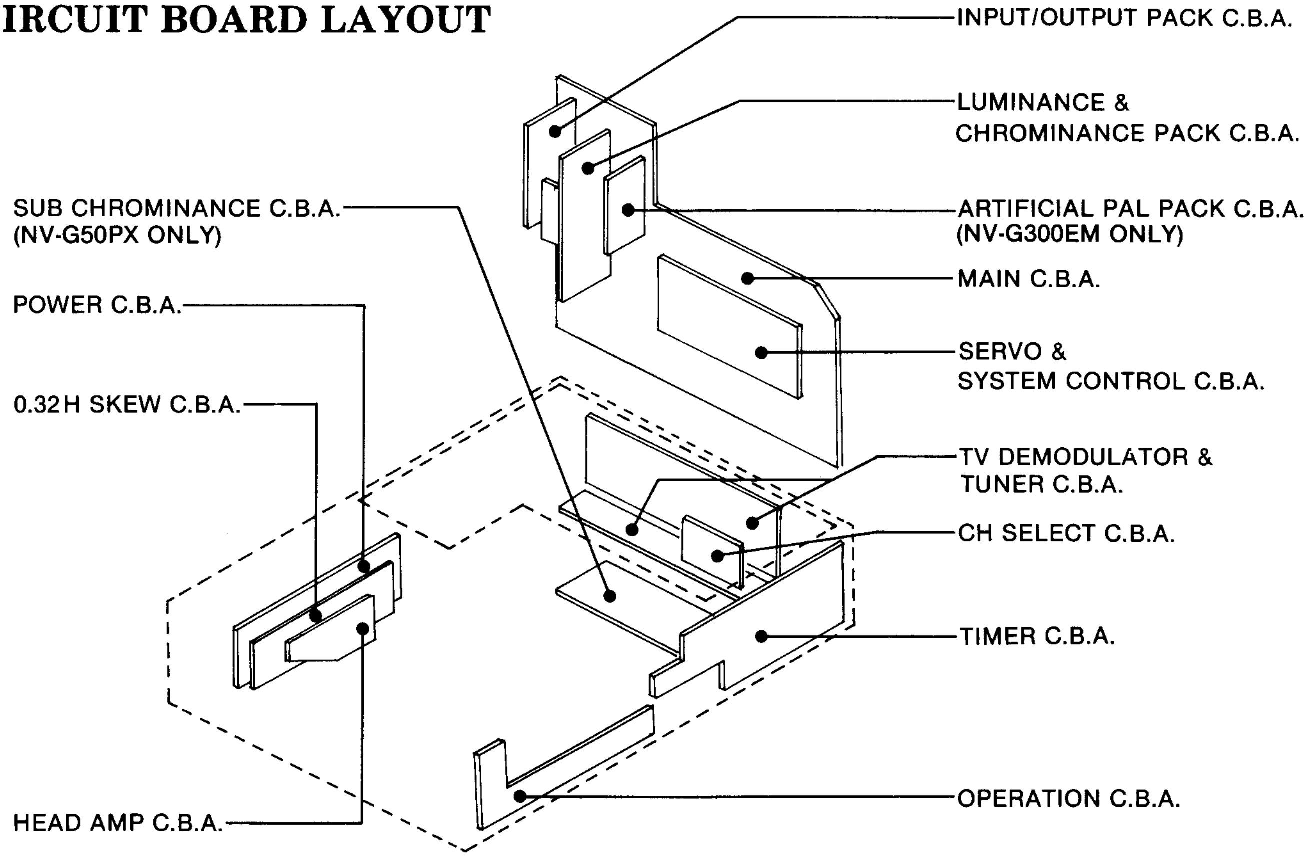
TP	ADJ.	MODE	INPUT
P3901-2	VR3901	STOP	
TAPE	**M. EQ.**	**SPEC.**	
	FREQUENCY COUNTER	f=15,700±25Hz	

AUDIO SECTION

2-4-18. AUDIO BIAS CURRENT ADJUSTMENT

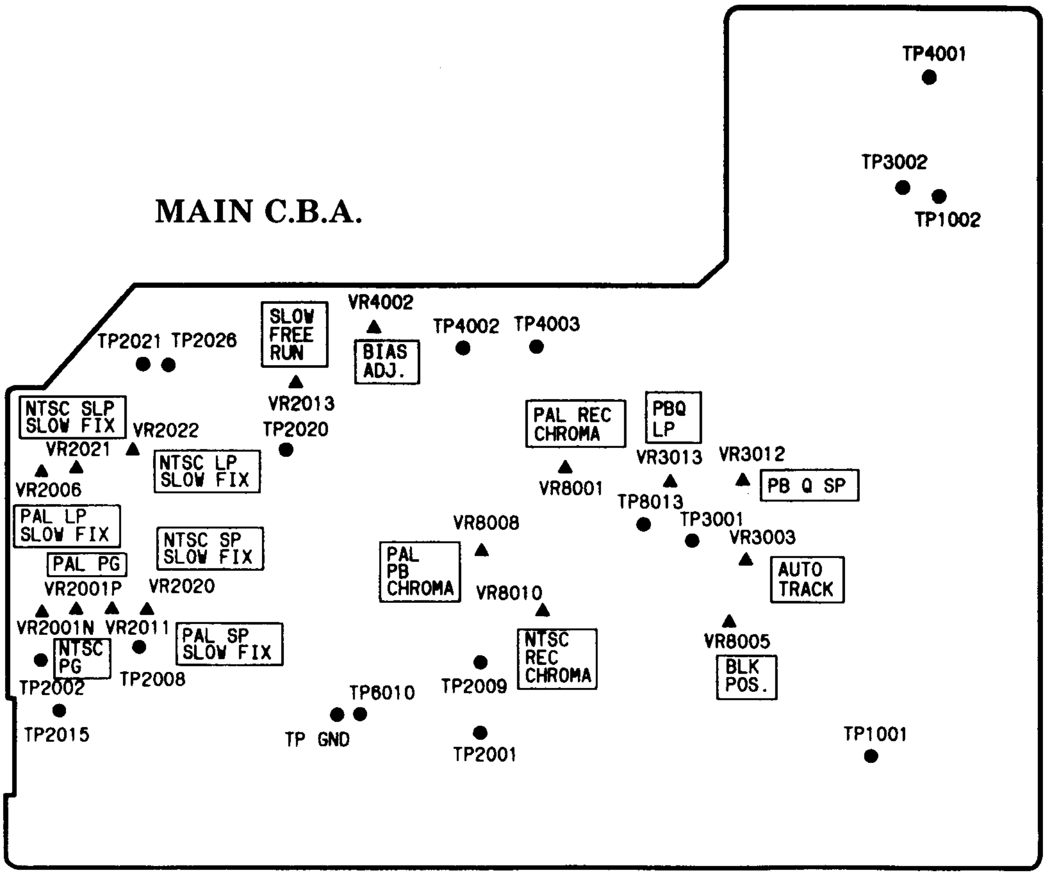
TP	ADJ.	MODE	INPUT
TP4002 (HOT) TP4003 (GND)	VR4002	RECORDING	
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	V.T.V.M	2.6±0.1mVrms	

CIRCUIT BOARD LAYOUT

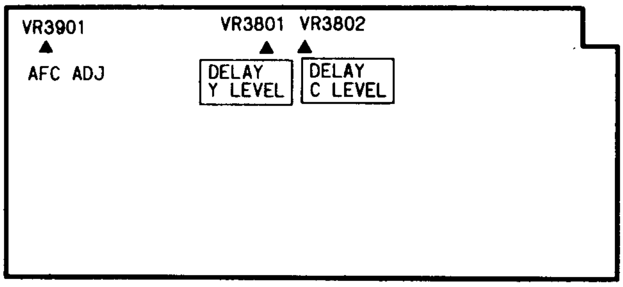

INPUT/OUTPUT PACK C.B.A.
LUMINANCE & CHROMINANCE PACK C.B.A.
SUB CHROMINANCE C.B.A. (NV-G50PX ONLY)
ARTIFICIAL PAL PACK C.B.A. (NV-G300EM ONLY)
MAIN C.B.A.
POWER C.B.A.
SERVO & SYSTEM CONTROL C.B.A.
0.32H SKEW C.B.A.
TV DEMODULATOR & TUNER C.B.A.
CH SELECT C.B.A.
TIMER C.B.A.
OPERATION C.B.A.
HEAD AMP C.B.A.

LOCATION OF TEST POINTS & CONTROLS —1—

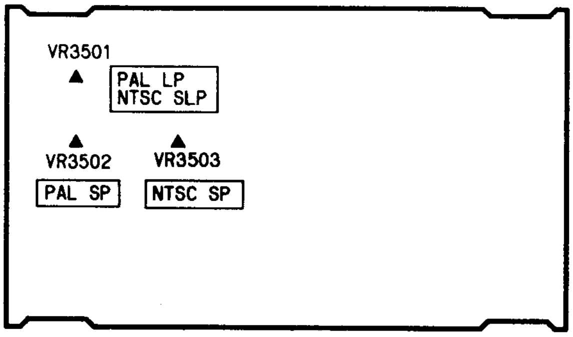
MAIN C.B.A.


TP4001
TP3002
TP1002
VR4002
SLOW FREE RUN
BIAS ADJ.
TP4002
TP4003
TP2021
TP2026
VR2013
TP2020
NTSC SLP SLOW FIX
VR2022
VR2021
VR2006
NTSC LP SLOW FIX
PAL REC CHROMA
PBQ LP
VR3013
VR3012
PB Q SP
VR8001
TP8013
TP3001
VR3003
PAL LP SLOW FIX
NTSC SP SLOW FIX
PAL PG
VR8008
PAL PB CHROMA
AUTO TRACK
VR2001P
VR2020
VR8010
VR2001N
VR2011
NTSC PG
PAL SP SLOW FIX
NTSC REC CHROMA
VR8005
BLK POS.
TP2002
TP2008
TP6010
TP2009
TP2015
TP GND
TP2001
TP1001

0.32H SKEW C.B.A.

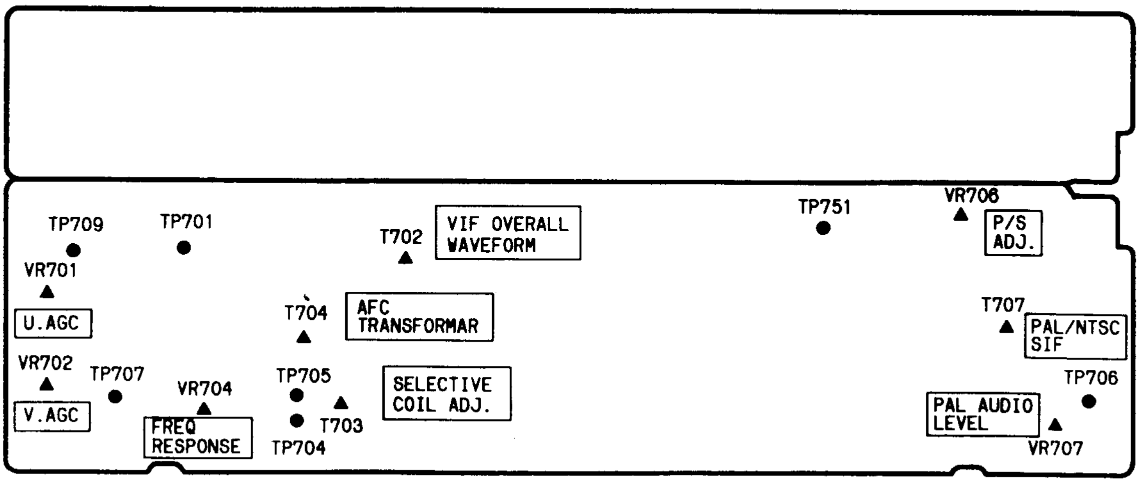

VR3901
AFC ADJ
VR3801
VR3802
DELAY Y LEVEL
DELAY C LEVEL

INPUT/OUTPUT PACK C.B.A.

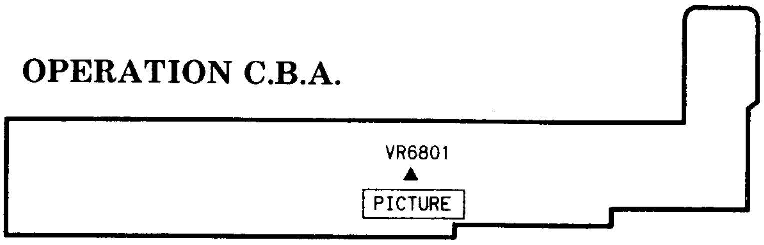

VR3501
PAL LP NTSC SLP
VR3502
VR3503
PAL SP
NTSC SP

LOCATION OF TEST POINTS & CONTROLS —2—

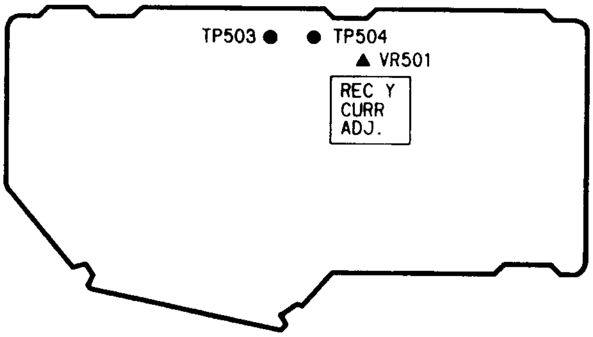
TV DEMODULATOR & TUNER C.B.A.


TP709
TP701
VR701
U.AGC
T702
VIF OVERALL WAVEFORM
T704
AFC TRANSFORMAR
VR702
TP707
VR704
V.AGC
FREQ RESPONSE
TP705
TP704
T703
SELECTIVE COIL ADJ.
TP751
VR706
P/S ADJ.
T707
PAL/NTSC SIF
TP706
PAL AUDIO LEVEL
VR707

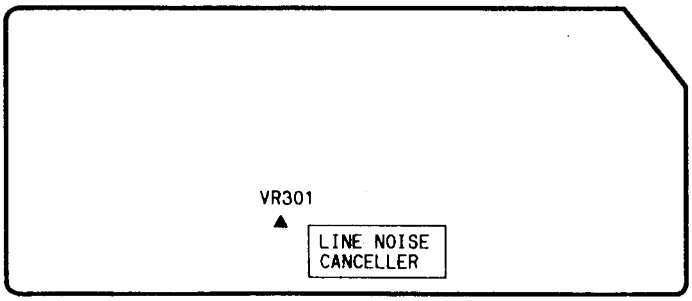
OPERATION C.B.A.


VR6801
PICTURE

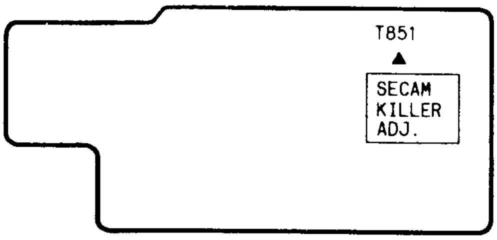
HEAD AMP C.B.A.


TP503
TP504
VR501
REC Y CURR ADJ.

LUMINANCE & CHROMINANCE PACK C.B.A.


VR301
LINE NOISE CANCELLER

SECAM PACK C.B.A.


T851
SECAM KILLER ADJ.

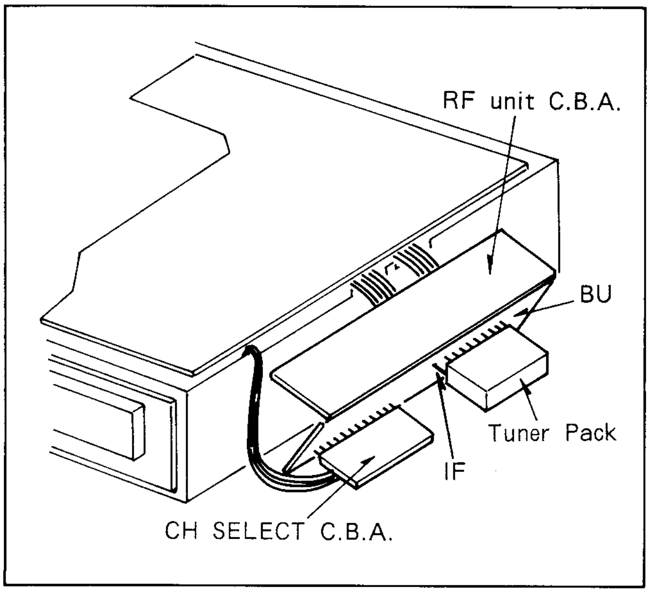
TV DEMODULATOR SECTION

2-4-19. TEST EQUIPMENTS

To make adjustment completely, following equipments are required.

1. VIF SWEEP GENERATOR with the Trap Adjuster
2. SIF SWEEP GENERATOR
3. CW OSCILLATOR
4. MONITOR SCOPE
5. OSCILLOSCOPE
6. DIGITAL VOLT METER

Note:
To make this adjustment, Please set the TV demodulator (VIF) & (SIF) and tuner pack as shown below.



RF unit C.B.A.
BU
Tuner Pack
IF
CH SELECT C.B.A.

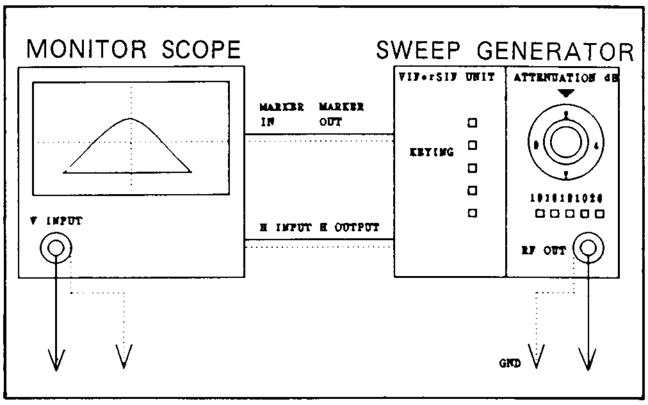
Fig. E14

1. First, remove RF unit C.B.A. from frame. Then, remove the Tuner pack and CH select C.B.A. from RF unit C.B.A. Reinstall the Tuner pack and CH select C.B.A. on the foil side not to mis-install the pin's order and solder the soldering portions of Tuner pack and CH select C.B.A. When reinstalling, be extremly careful not to make any short circuit.

2-4-20. SELECTIVE COIL ADJUSTMENT

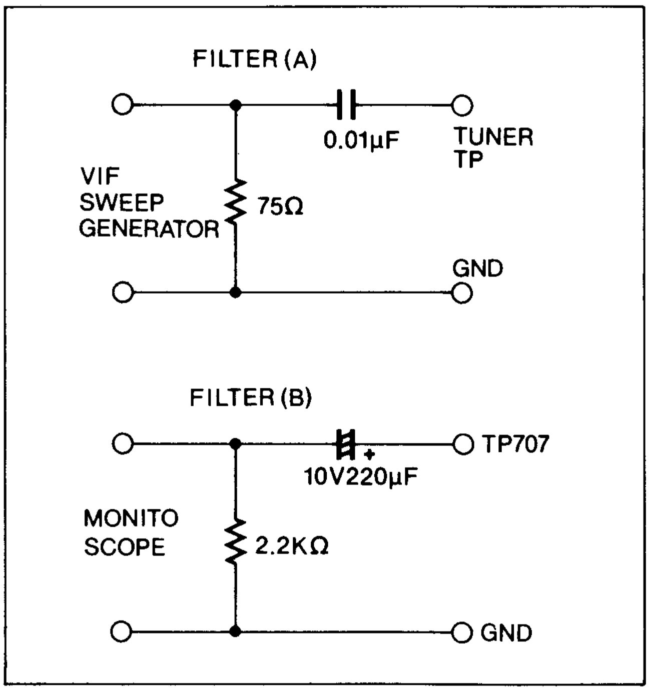
TP	ADJ.	MODE	INPUT
TP707	T703		VIF SWEEP
TAPE	M. EQ.	SPEC.	
	VIF SWEEP/ MONITOR SCOPE	A=38.9MHz	

1. Set the SYSTEM SELECTOR (located on rear Pannel) of VTR for "PAL/SECAM B, G" position.
2. Press PRESET/FINE/NORMAL Button and set the BAND SW of VTR for VHF high position (III). Push the tuning botton (+) or (−) so that voltage at BT terminal becomes 15+−1V.
3. Connect the jumper wire between CH select pack −9 and 13 in order to cut the AFC.
4. Connect the jumper wire between AGC terminal of tuner pack and GND.
5. Connect the VIF SWEEP GENERATOR output to TP701 through Flter A and connect the MONITOR SCOPE to TP707 through Filter B.
6. Adjust the VIF SWEEP GENERATOR output so that output waveform on MONITOR SCOPE become 0.3Vp−p. After output become 0.3Vp−p, increase VIF SWEEP GENERATOR output by 20dB.



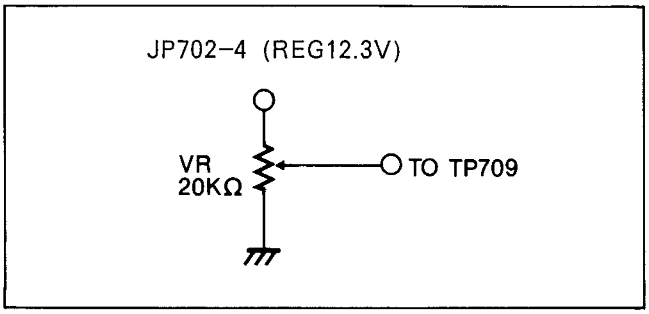
MONITOR SCOPE
SWEEP GENERATOR
VIF•SIF UNIT
ATTENUATION dB
MARKER IN
MARKER OUT
KEYING
V INPUT
H INPUT
H OUTPUT
RF OUT
GND

Fig. E15 Connection of Measuring Equipment



FILTER (A)
0.01μF
TUNER TP
VIF SWEEP GENERATOR
75Ω
GND
FILTER (B)
TP707
10V220μF
MONITO SCOPE
2.2KΩ
GND

Fig. E16



JP702−4 (REG12.3V)
VR 20KΩ
TO TP709

Fig. E17 Adjustment JIG (C)

7. Connect the Adjustment JIG (C) to TP709 and Adjust JIG (C) so that output waveform on MONITOR SCOP become 0.3Vp-p.
8. Adjust T703 so that peak of waveform become 38.9MHz.

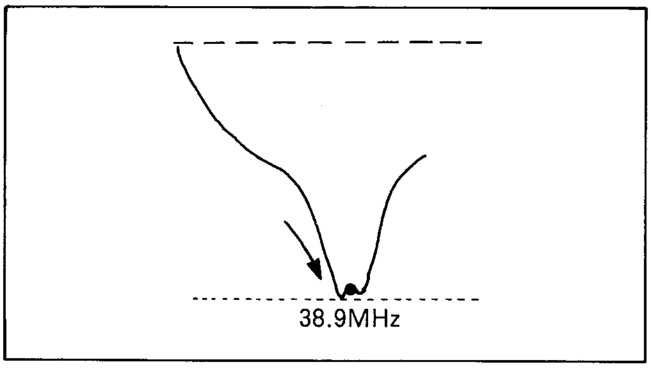


Fig. E18 Selective Adjustment

2-4-21. VIF OVERALL WAVEFORM ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP707	T702		VIF SWEEP
TAPE	**M. EQ.**	**SPEC.**	
	VIF SWEEP MONITOR SCOPE	SHOWN BELOW	

1. Set the SYSTEM SELECTOR (located on front pannel) for "NTSC" mode.
2. Push PRESET/FINE/NORMAL button. Set the BAND SW for VHF high (III) position.
3. Connect the jumper wire between CH select pack -9 and 13 in order to cut the AFC.
4. Push the tuning button (+) or (−) so that voltage at BT terminal of tuner pack become 15+-1V.
5. Connect the jumper wire between AGC terminal of tuner and GND.
6. Connect 100ohm resistor between TP704 and TP705.
7. Connect VIF SWEEP to Tuner TP and connect the MONITOR SCOPE to TP707.

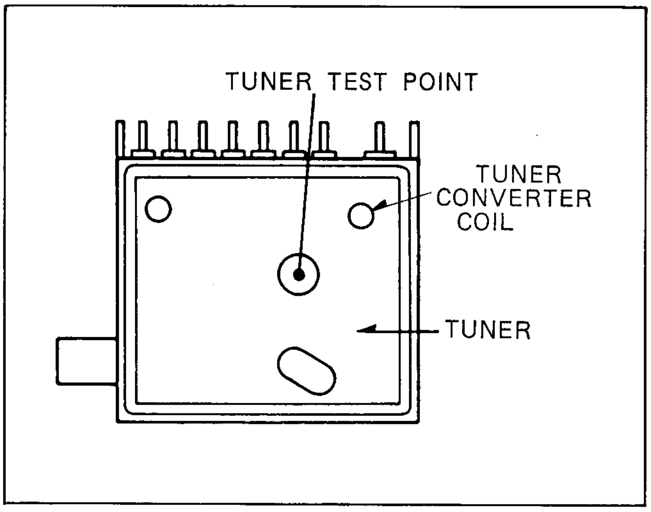


Fig. E19

8. Adjust the VIF SWEEP OUT so that output become 0.3Vp-p and then, increase VIF SWEEP by 20dB.
9. Connect Adjustment JIG (C) to TP709 and adjust JIG (C) so that output become 0.3Vp-p.
10. Set the system selecter (located on real pannel) for "NTSC" mode.
11. Adjust TUNER CONVERTER COIL (Fig. E19)so that fp (38.9M) become 35% comparing with 0.3V (100%).

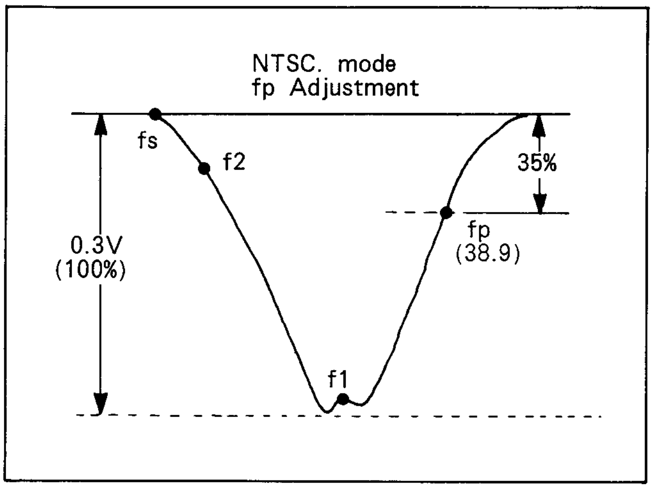


Fig. E20

12. Increase VIF SWEEP output by 16dB, then, adjust TP702 so that fs (34.47MHz) become 35%.

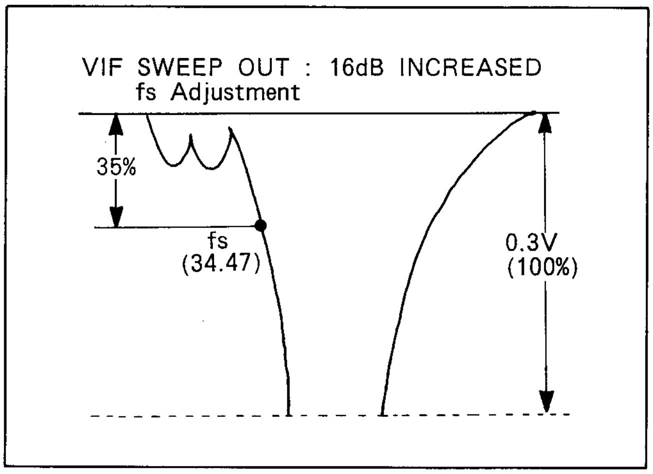


Fig. E21

13. Set the SYSTEM SW (located on rear panel) of "PAL B.G" mode and decrease VIF SWEEP output by 16dB.
14. Adjust the JIG (C) so that output become 0.3Vp-p.
15. Adjust TUNER CONVERTER COIL so that waveform become as shown in Fig. E22.

REMARK:
ITEM 1～12 (NV-G50PX ONLY)
ITEM 13～15 (NV-G50PX/NV-G300EM)

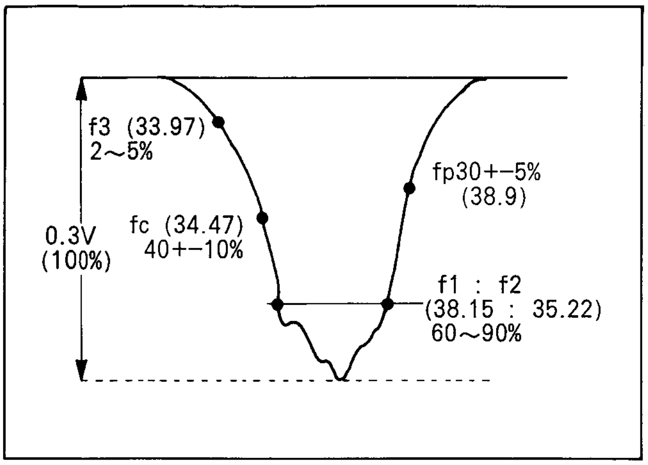


Fig. E22

2-4-22. PAL · NTSC SIF ADJUSTMENT

TP	ADJ.	MODE	INPUT
JP701-3	T707		SIF SWEEP
TAPE	**M. EQ.**	**SPEC.**	
	MONITOR SCOPE	SHOWN BELOW	

1. Set the system selector (located on rear pannel) for "PAL B.G" mode.
2. Set the BAND SW for VHF high (III) position.
3. Connect the jumper wire between CH select pack pack -9 and 13 to cut AFC.
4. Push the tuning button (+) or (-) so that BT voltage of tuner become 15+-1V.
5. Set the SIF frequency of SIF SWEEP to 5.5MHz.
6. Connect the SIF SWEEP to TP706 and MONITOR SCOPE to JP701-3 with JP701-3 (Fig. E23).
7. Adjust SIF SWEEP output to 250mVrms.
8. Adjust T707 so that trap signal is minimized and amplitude is maximized.

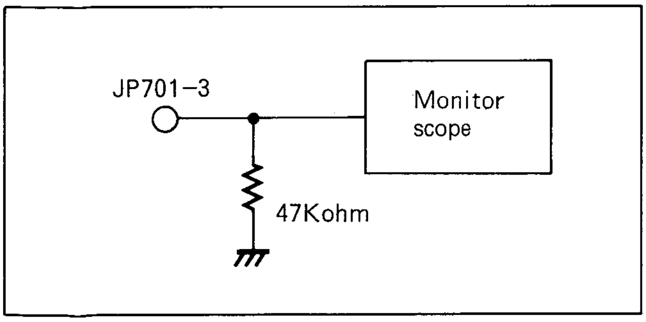


Fig. E23

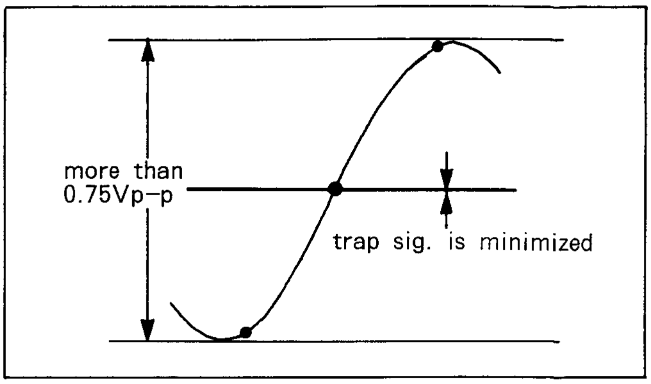


Fig. E24

2-4-23. AFC TRANSFORMAR ADJUSTMENT

TP	ADJ.	MODE	INPUT
AFC TERMINAL OF TUNER	T704		CW OSC 38.9MHz, 1.0Vp-p
TAPE	**M. EQ.**	**SPEC.**	
	V.T.V.M	AFC OFF VOLTAGE ±0.3V	

1. Set the system selector (located on rear pannel) for "PAL B.G" mode.
2. Set the BAND SW for VHF high (III) position.
3. Push the tuning button (+) or (-) button so that BT voltage of tuner become 15+-1V.
4. Connect the jumper wire between CH select pack -9 and 13 to set AFC off.
5. Read the voltage at AFC terminal of tuner.
6. Connect the jumper wire between CH select pack -9 and 1.
7. Adjust T704 so that voltage at AFC terminal of tuner, become AFC off +-0.3V.

2-4-24. PAL AUDIO LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
JP701-3	VR707		PAL RF
TAPE	**M. EQ.**	**SPEC.**	
	OSCILLO-SCOPE	120±10mVp-p	

1. Set the System selector (located on rear pannel) for "PAL B.G" mode.
2. Set the PAL RF GENERATOR as follows

   Audio MOD : 400Hz
   30% MOD/FM
   Video MOD : 87.5%
   Output Electric Field : 75dB

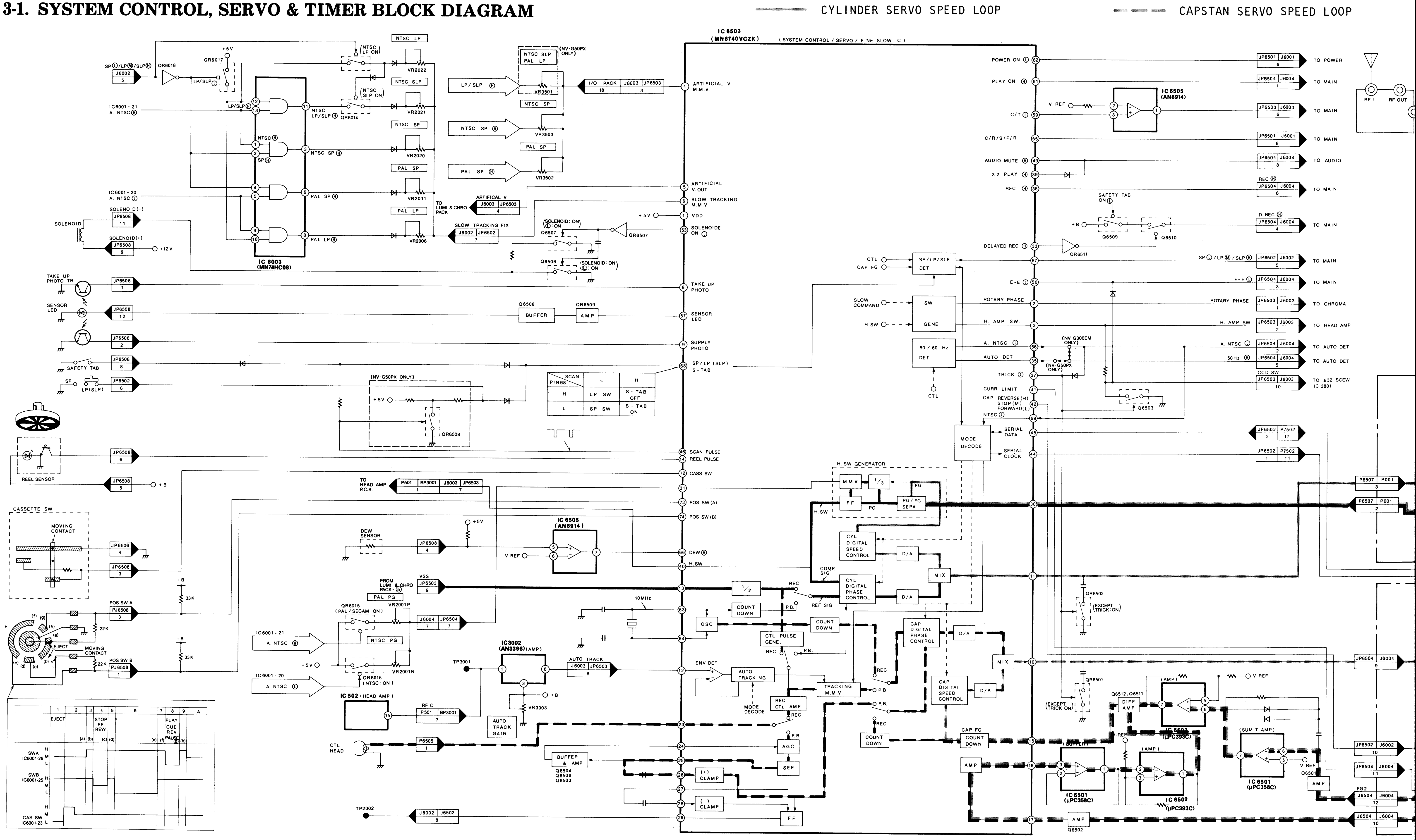
3. Connect the PAL RF GENERATOR to RF IN.
4. Adjust the VR707 so that voltage at JP701-3 become 120+-10mVp-p.

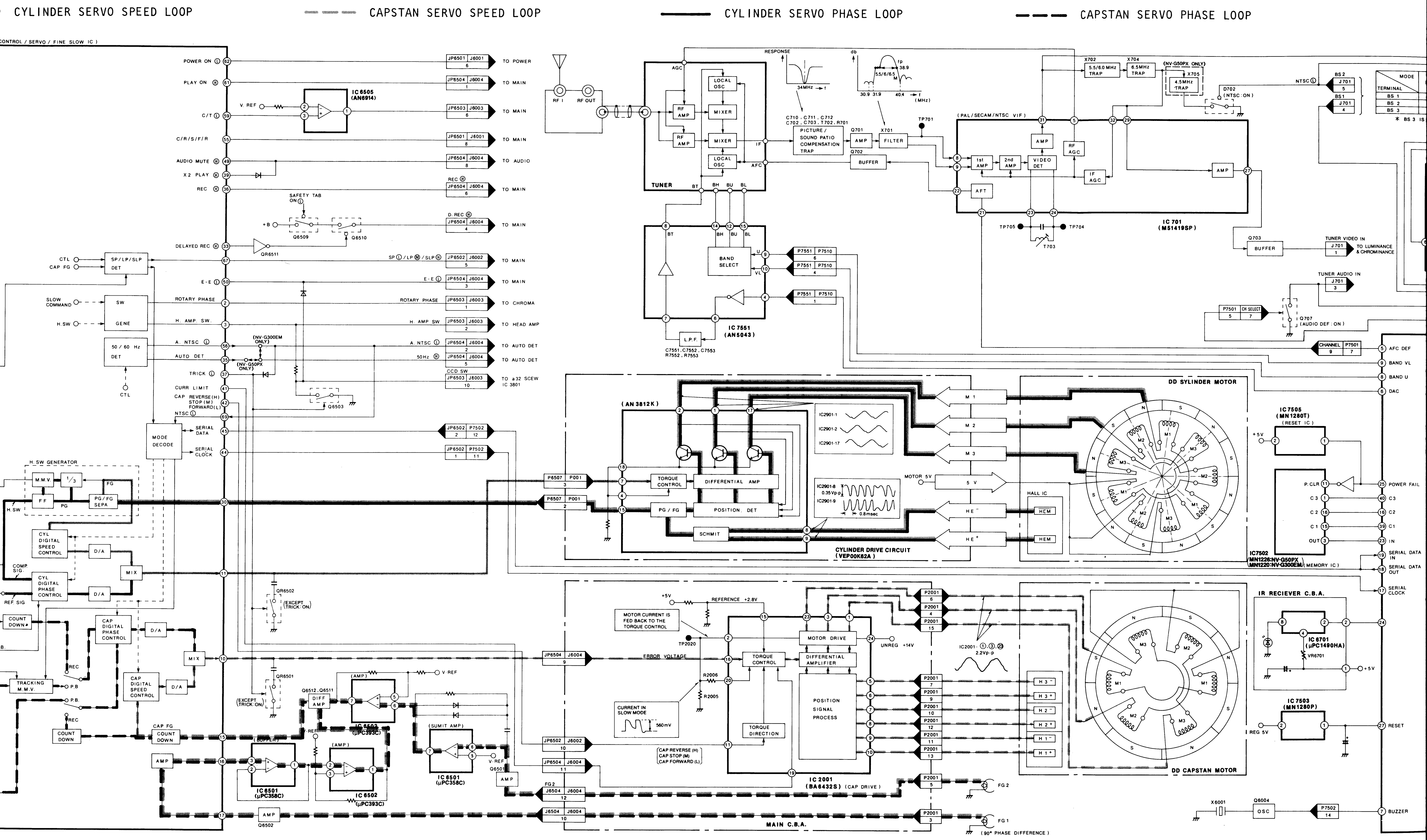
Note:
JP701-3 must be 47ohm terminated (like Fig. E23).

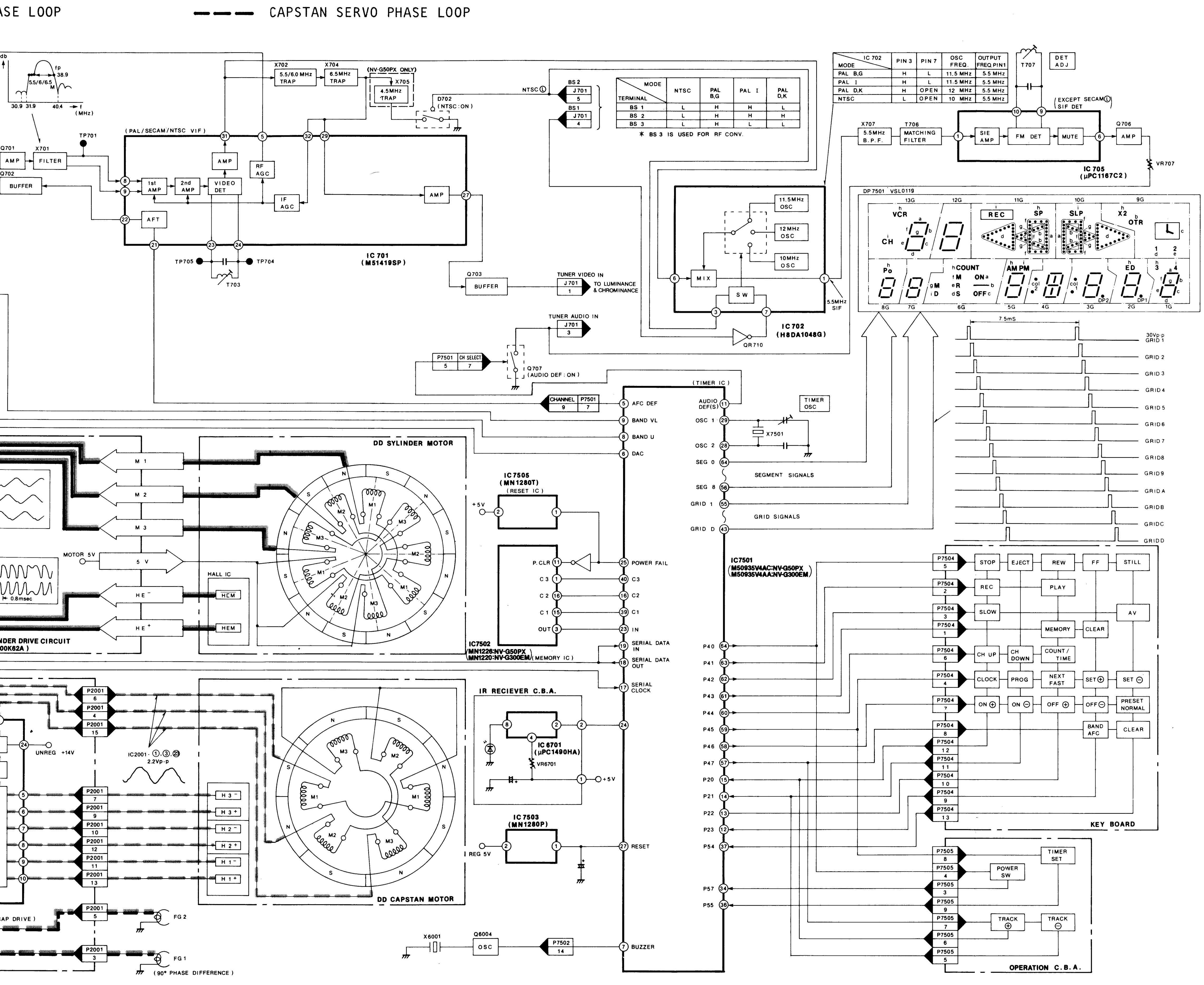
SECTION 3

BLOCK DIAGRAMS & SCHEMATIC DIAGRAMS

3-1. SYSTEM CONTROL, SERVO & TIMER BLOCK DIAGRAM


CYLINDER SERVO SPEED LOOP
CAPSTAN SERVO SPEED LOOP
IC 6503 (MN6740VCZK) (SYSTEM CONTROL / SERVO / FINE SLOW IC)
IC 6003 (MN74HC08)
IC 6505 (AN6914)
IC3002 (AN3396) (AMP)
IC 502 (HEAD AMP)
IC 6501 (μPC358C)
IC 6502 (μPC393C)
SP Ⓛ/LPⓂ/SLPⒽ
QR6018
QR6017
QR6014
NTSC LP
NTSC SLP
NTSC SP
PAL SP
PAL LP
VR2022
VR2021
VR2020
VR2011
VR2006
VR3501
VR3503
VR3502
LP/SLP Ⓗ
NTSC SP Ⓗ
PAL SP Ⓗ
(NV-G50PX ONLY)
I/O PACK
ARTIFICIAL V. M.M.V.
ARTIFICIAL V. OUT
SLOW TRACKING M.M.V.
SLOW TRACKING FIX
TO LUMI & CHRO PACK
VDD
SOLENOIDE ON Ⓛ
SOLENOID
Q6507
QR6507
Q6506
TAKE UP PHOTO TR
TAKE UP PHOTO
SENSOR LED
Q6508 BUFFER
QR6509 AMP
SUPPLY PHOTO
SAFETY TAB
SP
LP (SLP)
SP/LP (SLP) S-TAB
QR6508
SCAN PULSE
REEL PULSE
REEL SENSOR
CASS SW
CASSETTE SW
MOVING CONTACT
TO HEAD AMP P.C.B.
POS SW (A)
POS SW (B)
DEW SENSOR
DEW Ⓗ
H. SW
V REF
VSS
FROM LUMI & CHRO PACK
PAL PG
QR6015 (PAL/SECAM: ON)
VR2001P
NTSC PG
VR2001N
QR6016 (NTSC: ON)
A. NTSC Ⓗ
A. NTSC Ⓛ
TP3001
AUTO TRACK
AUTO TRACK GAIN
VR3003
RF C
CTL HEAD
TP2002
10MHz
OSC
COUNT DOWN
1/2
ENV DET
AUTO TRACKING
CTL PULSE GENE.
REC CTL AMP
TRACKING M.M.V.
MODE DECODE
AGC
SEP
(+) CLAMP
(−) CLAMP
BUFFER & AMP
Q6504 Q6505 Q6503
FF
H. SW GENERATOR
M.M.V.
1/3
PG/FG SEPA
CYL DIGITAL SPEED CONTROL
CYL DIGITAL PHASE CONTROL
COMP SIG
REF SIG
D/A
MIX
CAP DIGITAL PHASE CONTROL
CAP DIGITAL SPEED CONTROL
CAP FG
SP/LP/SLP DET
SW GENE
SLOW COMMAND
50/60 Hz DET
MODE DECODE
POWER ON Ⓛ
PLAY ON Ⓗ
C/T Ⓛ
C/R/S/F/R
AUDIO MUTE Ⓗ
X2 PLAY Ⓗ
REC Ⓗ
DELAYED REC Ⓗ
E-E Ⓛ
ROTARY PHASE
H. AMP. SW.
A. NTSC Ⓛ
AUTO DET
TRICK Ⓛ
CURR LIMIT
CAP REVERSE (H) STOP (M) FORWARD (L)
NTSC Ⓛ
SERIAL DATA
SERIAL CLOCK
SAFETY TAB ON Ⓛ
Q6509
Q6510
QR6511
Q6503
QR6502 (EXCEPT TRICK: ON)
QR6501 (EXCEPT TRICK: ON)
(NV-G300EM ONLY)
(NV-G50PX ONLY)
CCD SW
D. REC Ⓗ
DIFF AMP
(SUMIT AMP)
(BUFFER)
AMP
Q6512, Q6511
Q6502
FG2
TO POWER
TO MAIN
TO AUDIO
TO CHROMA
TO HEAD AMP
TO AUTO DET
TO a32 SCEW IC 3801
RF I
RF OUT
EJECT
STOP FF REW
PLAY CUE REV PAUSE
SWA IC6001-26
SWB IC6001-25
CAS SW IC6001-23

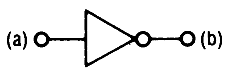
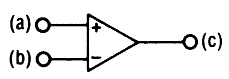
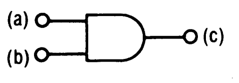
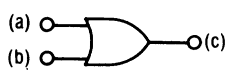
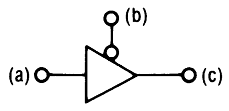
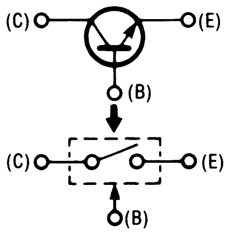
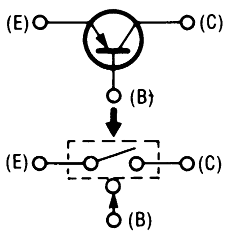
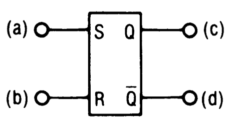

CYLINDER SERVO SPEED LOOP
CAPSTAN SERVO SPEED LOOP
CYLINDER SERVO PHASE LOOP
CAPSTAN SERVO PHASE LOOP
CONTROL / SERVO / FINE SLOW IC)
POWER ON Ⓛ 62
PLAY ON Ⓗ 61
C/T Ⓛ 59
C/R/S/F/R 55
AUDIO MUTE Ⓗ 49
X2 PLAY Ⓗ 39
REC Ⓗ 36
DELAYED REC Ⓗ 33
IC 6505 (AN6914)
V. REF
SAFETY TAB ON Ⓛ
Q6509
Q6510
QR6511
+B
TO POWER
TO MAIN
TO AUDIO
TO CHROMA
TO HEAD AMP
TO AUTO DET
TO a32 SCEW IC 3801
REC Ⓗ
D. REC Ⓗ
JP6501 J6001
JP6504 J6004
JP6503 J6003
JP6502 J6002
CTL
CAP FG
SP/LP/SLP DET
SP Ⓛ / LP Ⓜ / SLP Ⓗ
E-E Ⓛ
SLOW COMMAND
H.SW
SW GENE
ROTARY PHASE
H. AMP. SW.
H. AMP SW
50 / 60 Hz DET
A. NTSC Ⓛ
AUTO DET
50Hz Ⓗ
(NV-G300EM ONLY)
(NV-G50PX ONLY)
TRICK Ⓛ
CCD SW
CURR LIMIT
CAP REVERSE(H) STOP(M) FORWARD(L)
NTSC Ⓛ
Q6503
MODE DECODE
SERIAL DATA
SERIAL CLOCK
JP6502 P7502
H.SW GENERATOR
M.M.V.
1/3
FF
PG
FG
PG/FG SEPA
CYL DIGITAL SPEED CONTROL
CYL DIGITAL PHASE CONTROL
COMP SIG
REF SIG
D/A
MIX
COUNT DOWN
CAP DIGITAL PHASE CONTROL
CAP DIGITAL SPEED CONTROL
TRACKING M.M.V.
REC
P.B
CAP FG
COUNT DOWN
AMP
QR6502 (EXCEPT TRICK:ON)
QR6501 (EXCEPT TRICK:ON)
Q6512, Q6511 DIFF AMP
(AMP)
V REF
IC 6502 (µPC393C)
(SUMIT AMP)
IC 6501 (µPC358C)
(BUFFER)
Q6501
Q6502
V-REF
REF
FG2
JP6504 J6004
J6504 J6004
ERROR VOLTAGE
MAIN C.B.A.
RF I
RF OUT
AGC
TUNER
RF AMP
LOCAL OSC
MIXER
IF
AFC
BT BH BU BL
RESPONSE
34MHz
db
fp 38.9
5.5/6/6.5
30.9 31.9
40.4
(MHz)
C710, C711, C712 C702, C703, T702, R701
PICTURE / SOUND PATIO COMPENSATION TRAP
Q701 AMP
X701 FILTER
Q702 BUFFER
TP701
BAND SELECT
U
VL
P7551 P7510
IC 7551 (AN5043)
L.P.F.
C7551, C7552, C7553 R7552, R7553
X702 5.5/6.0 MHz TRAP
X704 6.5MHz TRAP
(NV-G50PX ONLY) X705 4.5MHz TRAP
D702 (NTSC:ON)
NTSC Ⓛ
(PAL/SECAM/NTSC VIF)
1st AMP
2nd AMP
VIDEO DET
RF AGC
IF AGC
AFT
TP705
TP704
T703
IC 701 (M51419SP)
Q703 BUFFER
TUNER VIDEO IN J701 1 TO LUMINANCE & CHROMINANCE
TUNER AUDIO IN J701 3
P7501 CH SELECT
Q707 (AUDIO DEF:ON)
CHANNEL P7501
BS 2 J701 5
BS 1 J701 4
MODE
TERMINAL
BS 1
BS 2
BS 3
* BS 3 IS
AFC DEF
BAND VL
BAND U
DAC
(AN 3812K)
IC2901-1
IC2901-2
IC2901-17
IC2901-8 0.35Vp-p
IC2901-9
0.8msec
TORQUE CONTROL
DIFFERENTIAL AMP
PG / FG
POSITION. DET
SCHMIT
MOTOR 5V
5 V
M 1
M 2
M 3
HE⁻
HE⁺
HALL IC
HEM
DD SYLINDER MOTOR
CYLINDER DRIVE CIRCUIT (VEP00K62A)
P6507 P001
IC 7505 (MN1280T) (RESET IC)
+5V
P. CLR
C3
C2
C1
OUT
POWER FAIL
IN
SERIAL DATA IN
SERIAL DATA OUT
SERIAL CLOCK
IC7502 MN1226:NV-G50PX MN1220:NV-G300EM (MEMORY IC)
IR RECIEVER C.B.A.
IC 6701 (µPC1490HA)
VR6701
IC 7503 (MN1280P)
REG 5V
RESET
X6001
Q6004 OSC
P7502 14
BUZZER
+5V
REFERENCE +2.8V
MOTOR CURRENT IS FED BACK TO THE TORQUE CONTROL
TP2020
R2006
R2005
CURRENT IN SLOW MODE
560mV
MOTOR DRIVE
UNREG +14V
TORQUE CONTROL
DIFFERENTIAL AMPLIFIER
POSITION SIGNAL PROCESS
TORQUE DIRECTION
CAP REVERSE (H) CAP STOP (M) CAP FORWARD (L)
IC 2001 (BA6432S) (CAP DRIVE)
P2001
IC2001-①.③.㉓ 2.2Vp-p
H3⁻ H3⁺ H2⁻ H2⁺ H1⁻ H1⁺
DD CAPSTAN MOTOR
FG 2
FG 1
(90° PHASE DIFFERENCE)


SE LOOP
CAPSTAN SERVO PHASE LOOP
X702 5.5/6.0 MHz TRAP
X704 6.5MHz TRAP
(NV-G50PX ONLY) X705 4.5MHz TRAP
D702 (NTSC : ON)
NTSC
BS 2 J701 5
BS 1 J701 4
(PAL/SECAM/NTSC VIF)
TP701
Q701 AMP
X701 FILTER
Q702 BUFFER
1st AMP
2nd AMP
VIDEO DET
AMP
RF AGC
IF AGC
AFT
AMP
IC 701 (M51419SP)
TP705
TP704
T703
Q703 BUFFER
TUNER VIDEO IN J701 1
TO LUMINANCE & CHROMINANCE
TUNER AUDIO IN J701 3
P7501 CH SELECT 5 7
Q707 (AUDIO DEF : ON)
11.5MHz OSC
12MHz OSC
10MHz OSC
MIX
SW
IC 702 (H8DA1048G)
QR710
5.5MHz SIF
X707 5.5MHz B.P.F.
T706 MATCHING FILTER
SIE AMP
FM DET
MUTE
T707
DET ADJ
(EXCEPT SECAM Ⓛ SIF DET)
IC 705 (μPC1167C2)
Q706 AMP
VR707
DP 7501 VSL0119
VCR
CH
REC
SP
SLP
X2
OTR
Po
COUNT
AM PM
ED
7.5mS
30Vp-p GRID 1
GRID 2
GRID 3
GRID 4
GRID 5
GRID 6
GRID 7
GRID 8
GRID 9
GRID A
GRID B
GRID C
GRID D
(TIMER IC)
CHANNEL P7501 9 7
AFC DEF
BAND VL
BAND U
DAC
AUDIO DEF(S)
OSC 1
OSC 2
SEG 0
SEG 8
GRID 1
GRID D
TIMER OSC
X7501
SEGMENT SIGNALS
GRID SIGNALS
IC7505 (MN1280T) (RESET IC)
+5V
P.CLR
C3
C2
C1
OUT
POWER FAIL
SERIAL DATA IN
SERIAL DATA OUT
SERIAL CLOCK
IC7502 (MN1226:NV-G50PX MN1220:NV-G300EM) (MEMORY IC)
IC7501 (M50935V4AC:NV-G50PX M50935V4AA:NV-G300EM)
P40 P41 P42 P43 P44 P45 P46 P47 P20 P21 P22 P23 P54 P57 P55
STOP
EJECT
REW
FF
STILL
REC
PLAY
SLOW
AV
MEMORY
CLEAR
CH UP
CH DOWN
COUNT / TIME
CLOCK
PROG
NEXT FAST
SET ⊕
SET ⊖
ON ⊕
ON ⊖
OFF ⊕
OFF ⊖
PRESET NORMAL
BAND AFC
CLEAR
KEY BOARD
TIMER SET
POWER SW
TRACK ⊕
TRACK ⊖
OPERATION C.B.A.
RESET
BUZZER
P7502 14
Q6004 OSC
X6001
IR RECIEVER C.B.A.
IC 6701 (μPC1490HA)
VR6701
IC 7503 (MN1280P)
REG 5V
DD SYLINDER MOTOR
M 1
M 2
M 3
5 V
HE⁻
HE⁺
MOTOR 5V
HALL IC
HCM
HEM
0.8msec
NDER DRIVE CIRCUIT
00K62A
DD CAPSTAN MOTOR
P2001
UNREG +14V
IC2001-①,③,㉓ 2.2Vp-p
H 3⁻
H 3⁺
H 2⁻
H 2⁺
H 1⁻
H 1⁺
AP DRIVE
FG 2
FG 1
(90° PHASE DIFFERENCE)

MODE / TERMINAL	NTSC	PAL B,G	PAL I	PAL D,K
BS 1	L	H	H	L
BS 2	L	H	H	H
BS 3	L	H	L	L

* BS 3 IS USED FOR RF CONV.

IC 702 / MODE	PIN 3	PIN 7	OSC FREQ.	OUTPUT FREQ.PIN1
PAL B,G	H	L	11.5 MHz	5.5 MHz
PAL I	H	L	11.5 MHz	5.5 MHz
PAL D,K	H	OPEN	12 MHz	5.5 MHz
NTSC	L	OPEN	10 MHz	5.5 MHz

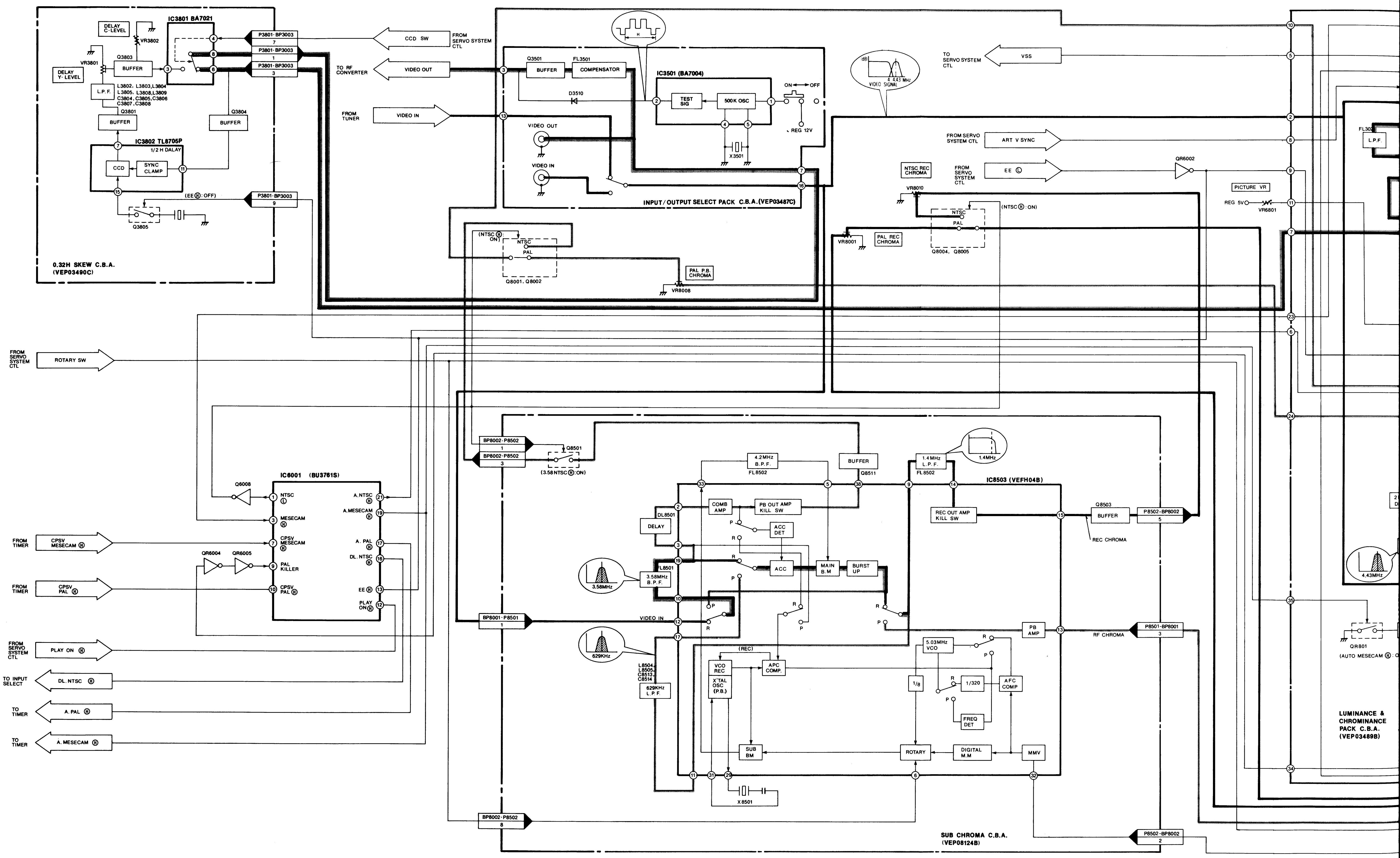
SYMBOL	TRUTH VALUE TABLE
INVERTER 	IN (a) H L OUT (b) L H
COMPARTOR 	IN (a)/(b) (a)>(b) (a)<(b) OUT (c) H L
AND CIRCUIT 	IN (a) L L H H IN (b) L H L H OUT (c) L L L H
OR CIRCUIT 	IN (a) L L H H IN (b) L H L H OUT (c) L H H H
THREE STATES BUFFER 	IN (a) H L H or L IN (b) L L H OUT (c) H L ※ ※ High Impedance
TR. SW (NPN TYPE) 	BASE H L TR. SW ON OFF
TR. SW (PNP TYPE) 	BASE H L TR. SW OFF ON
R-S TYPE FLIP-FLOP 	IN (a) L L ⎍ IN (b) L ⎍ L OUT (c) ※ L H OUT (d) ◆ H L ※ Initial condition is maintained. ◆ Initial condition is reverced.

Next Page:
LUMINANCE & CHROMINANCE Section

3-2. LUMINANCE & CHROMINANCE (NV-G50PX) BLOCK DIAGRAM

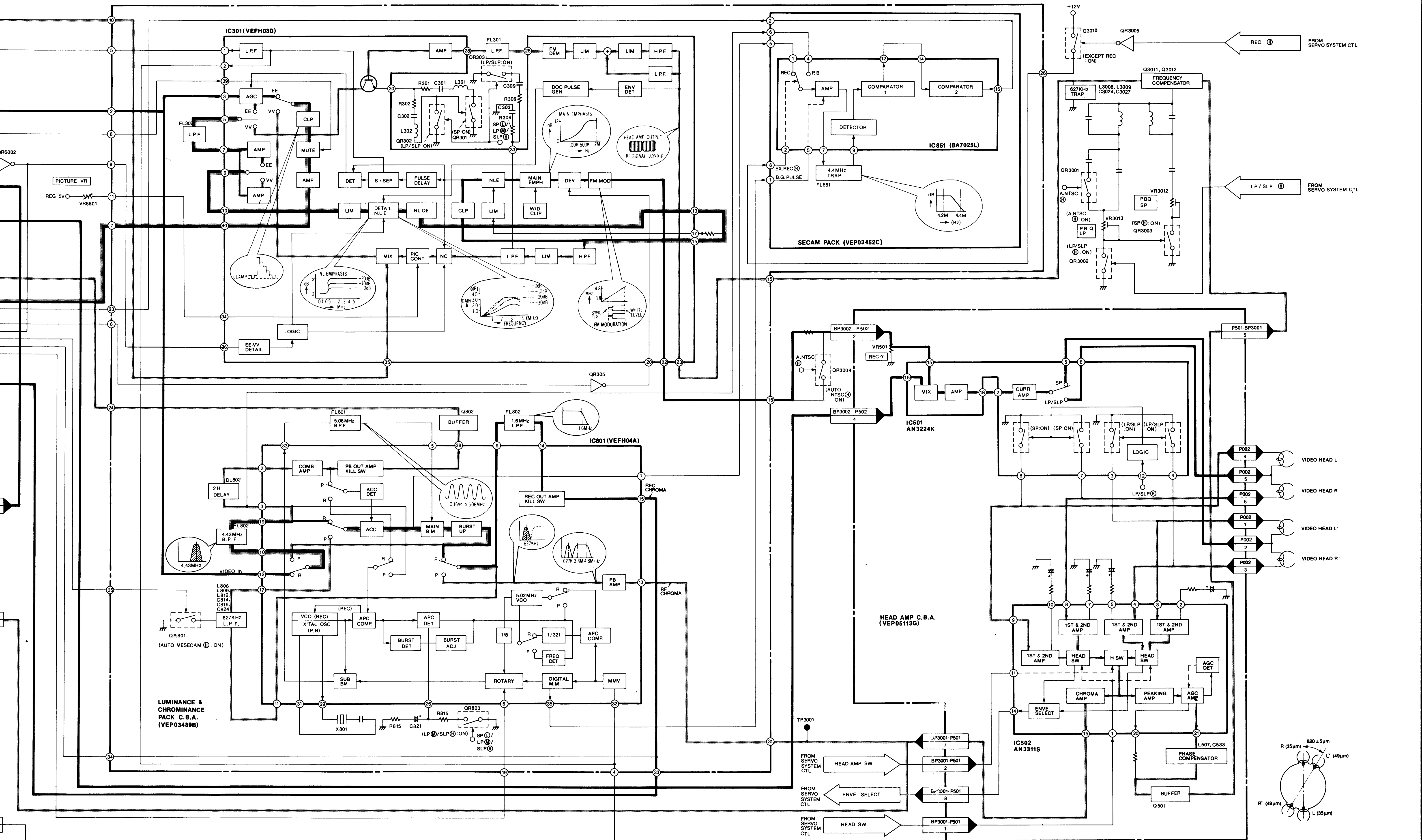
MAIN SIGNAL PATH IN REC MODE

MAIN SIGNAL PATH IN PLAYBACK M



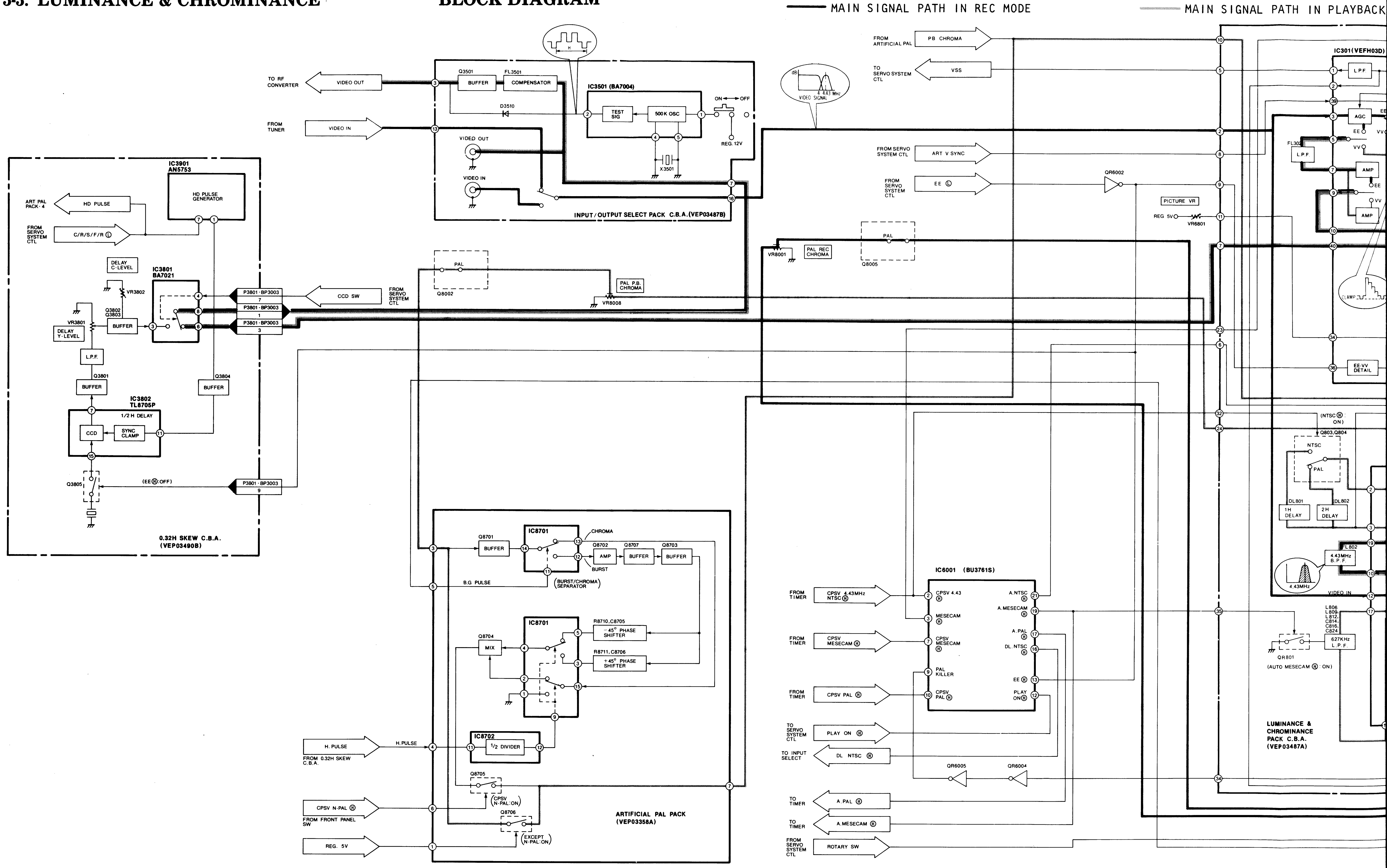
DELAY C-LEVEL
IC3801 BA7021
VR3802
Q3803
VR3801
BUFFER
DELAY Y-LEVEL
L.P.F.
L3802, L3803, L3804
L3805, L3808, L3809
C3804, C3805, C3806
C3807, C3808
Q3801
BUFFER
Q3804
BUFFER
IC3802 TL8705P
1/2 H DALAY
CCD
SYNC CLAMP
(EE Ⓗ: OFF)
Q3805
0.32H SKEW C.B.A.
(VEP03490C)
P3801·BP3003
CCD SW
FROM SERVO SYSTEM CTL
TO RF CONVERTER
VIDEO OUT
FROM TUNER
VIDEO IN
Q3501
BUFFER
FL3501
COMPENSATOR
IC3501 (BA7004)
TEST SIG
500K OSC
D3510
ON ⟷ OFF
REG 12V
X3501
VIDEO OUT
VIDEO IN
INPUT/OUTPUT SELECT PACK C.B.A. (VEP03487C)
H
dB
4 4.43 MHz
VIDEO SIGNAL
TO SERVO SYSTEM CTL
VSS
FROM SERVO SYSTEM CTL
ART V SYNC
FROM SERVO SYSTEM CTL
EE Ⓛ
NTSC REC CHROMA
VR8010
QR6002
PICTURE VR
REG 5V
VR6801
(NTSC Ⓗ: ON)
NTSC
PAL
Q8004, Q8005
VR8001
PAL REC CHROMA
(NTSC Ⓗ: ON)
NTSC
PAL
Q8001, Q8002
PAL P.B. CHROMA
VR8008
FL302
L.P.F.
FROM SERVO SYSTEM CTL
ROTARY SW
Q6008
IC6001 (BU3761S)
NTSC Ⓛ
MESECAM Ⓗ
CPSV MESECAM Ⓗ
PAL KILLER
CPSV PAL Ⓗ
A. NTSC Ⓗ
A. MESECAM Ⓗ
A. PAL Ⓗ
DL. NTSC Ⓗ
EE Ⓗ
PLAY ON Ⓗ
QR6004
QR6005
FROM TIMER
CPSV MESECAM Ⓗ
FROM TIMER
CPSV PAL Ⓗ
FROM SERVO SYSTEM CTL
PLAY ON Ⓗ
TO INPUT SELECT
DL. NTSC Ⓗ
TO TIMER
A. PAL Ⓗ
TO TIMER
A. MESECAM Ⓗ
BP8002·P8502
Q8501
(3.58 NTSC Ⓗ: ON)
4.2MHz B.P.F.
FL8502
BUFFER
Q8511
1.4MHz L.P.F.
FL8502
1.4MHz
IC8503 (VEFH04B)
DL8501
DELAY
COMB AMP
PB OUT AMP KILL SW
ACC DET
ACC
MAIN B.M
BURST UP
REC OUT AMP KILL SW
Q8503
BUFFER
P8502·BP8002
REC CHROMA
FL8501
3.58MHz B.P.F.
3.58MHz
BP8001·P8501
VIDEO IN
629KHz
L8504, L8505, C8513, C8514
629KHz L.P.F.
(REC)
VCO REC
X'TAL OSC (P.B.)
APC COMP.
5.03MHz VCO
1/8
1/320
AFC COMP
FREQ DET
PB AMP
P8501·BP8001
RF CHROMA
SUB BM
ROTARY
DIGITAL M.M
MMV
X8501
SUB CHROMA C.B.A.
(VEP08124B)
P8502·BP8002
QR801
(AUTO MESECAM Ⓗ: O
4.43MHz
LUMINANCE & CHROMINANCE PACK C.B.A.
(VEP03489B)

MAIN SIGNAL PATH IN PLAYBACK MODE

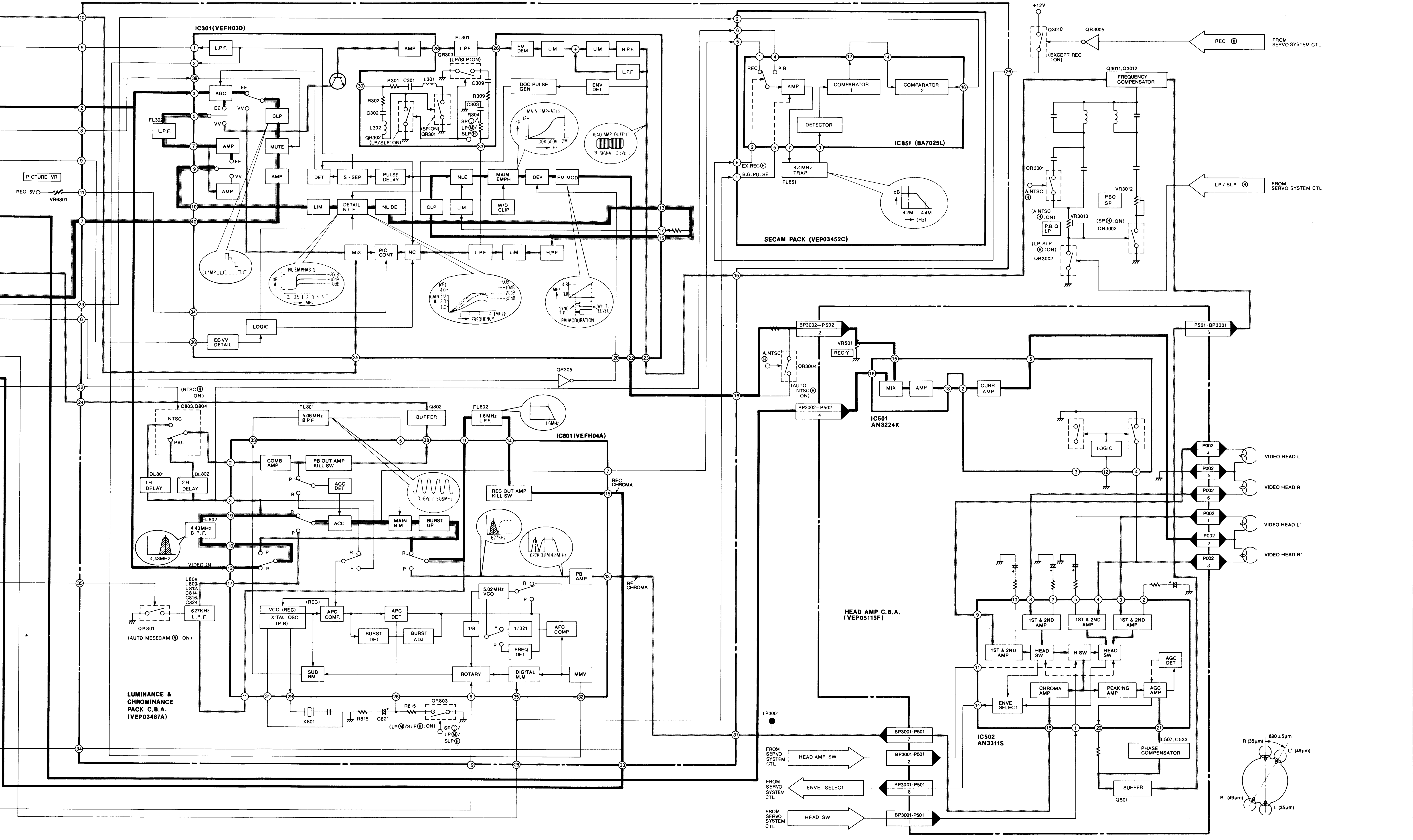


IC301(VEFH03D)
L.P.F.
AMP
FL301
QR303
(LP/SLP:ON)
FM DEMP
LIM
H.P.F.
AGC
EE
VV
CLP
MUTE
FL302
R301 C301 L301
R302
C302
L302
C309
C303
R309
R304
SP Ⓛ/ LP Ⓜ/ SLP Ⓗ
(SP:ON)
QR301
QR302 (LP/SLP:ON)
DOC PULSE GEN
ENV DET
MAIN EMPHASIS
HEAD AMP OUTPUT
RF SIGNAL 0.5Vp-p
PICTURE VR
REG 5V
VR6801
QR6002
DET
S-SEP
PULSE DELAY
NLE
MAIN EMPH
DEV
FM MOD
LIM
DETAIL N.L.E.
NL DE
CLP
W/D CLIP
MIX
PIC CONT
NC
CLAMP
NL EMPHASIS
GAIN
FREQUENCY
FM MODURATION
SYNC TIP
WHITE LEVEL
LOGIC
EE-VV DETAIL
QR305
FL801
5.06MHz B.P.F.
Q802
BUFFER
FL802
1.6MHz L.P.F.
1.6MHz
IC801 (VEFH04A)
COMB AMP
PB OUT AMP KILL SW
DL802
2H DELAY
ACC DET
ACC
MAIN B.M
BURST UP
0.16Vp-p 5.06MHz
REC OUT AMP KILL SW
REC CHROMA
4.43MHz B.P.F.
4.43MHz
VIDEO IN
627KHz
627K 3.8M 4.8MHz
PB AMP
RF CHROMA
L806 L809 L812 C814 C816 C824
627KHz L.P.F.
QR801
(AUTO MESECAM Ⓗ: ON)
VCO (REC)
X'TAL OSC (P.B)
(REC)
APC COMP.
APC DET
BURST DET
BURST ADJ
5.02MHz VCO
1/8
1/321
FREQ DET
AFC COMP.
SUB BM
ROTARY
DIGITAL M.M
MMV
LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03489B)
X801
R815
C821
QR803
(LP Ⓜ/SLP Ⓗ:ON)
EX.REC Ⓗ
B.G. PULSE
REC
P.B
AMP
COMPARATOR 1
COMPARATOR 2
DETECTOR
IC851 (BA7025L)
4.4MHz TRAP
FL851
4.2M 4.4M (Hz)
SECAM PACK (VEP03452C)
+12V
Q3010
QR3005
(EXCEPT REC :ON)
REC Ⓗ
FROM SERVO SYSTEM CTL
Q3011, Q3012
FREQUENCY COMPENSATOR
627KHz TRAP
L3008, L3009 C3024, C3027
QR3001
A.NTSC Ⓗ
(A.NTSC Ⓗ:ON)
P.B.Q LP
(LP/SLP Ⓗ:ON)
QR3002
VR3013
PBQ SP
VR3012
(SP Ⓗ:ON)
QR3003
LP/SLP Ⓗ
FROM SERVO SYSTEM CTL
BP3002-P502
A.NTSC Ⓗ
QR3004
(AUTO NTSC Ⓗ: ON)
VR501
REC-Y
MIX
AMP
IC501 AN3224K
CURR AMP
SP
LP/SLP
P501-BP3001
(SP:ON)
(LP/SLP :ON)
LOGIC
LP/SLP Ⓗ
P002
VIDEO HEAD L
VIDEO HEAD R
VIDEO HEAD L'
VIDEO HEAD R'
HEAD AMP C.B.A. (VEP05113G)
1ST & 2ND AMP
HEAD SW
H SW
AGC DET
CHROMA AMP
PEAKING AMP
AGC AMP
ENVE SELECT
IC502 AN3311S
L507, C533
PHASE COMPENSATOR
BUFFER
Q501
TP3001
BP3001-P501
FROM SERVO SYSTEM CTL
HEAD AMP SW
ENVE SELECT
HEAD SW
R (35μm)
620±5μm
L' (49μm)
R' (49μm)
L (35μm)

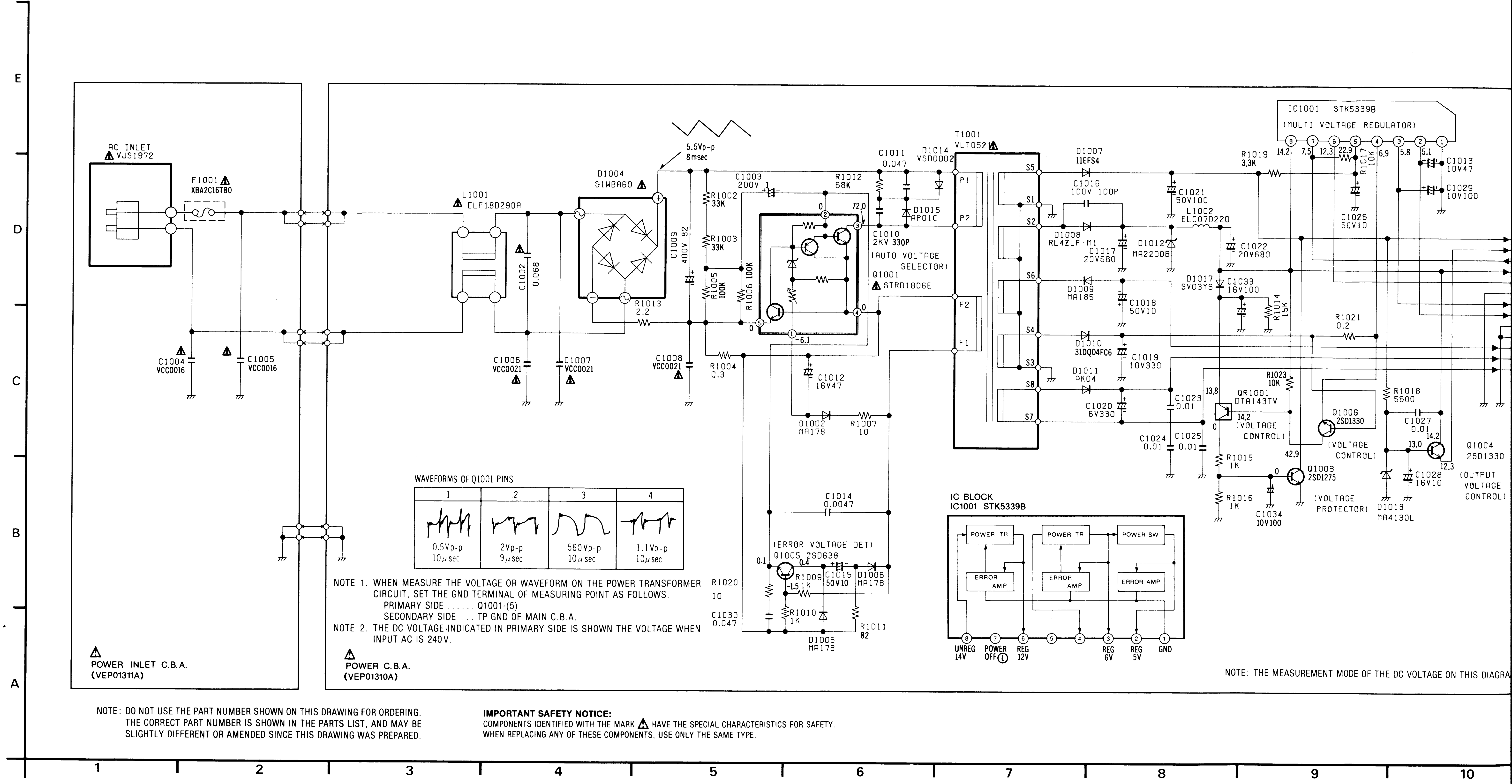
3-3. LUMINANCE & CHROMINANCE BLOCK DIAGRAM


MAIN SIGNAL PATH IN REC MODE
MAIN SIGNAL PATH IN PLAYBACK
TO RF CONVERTER
VIDEO OUT
FROM TUNER
VIDEO IN
Q3501
BUFFER
FL3501
COMPENSATOR
D3510
IC3501 (BA7004)
TEST SIG
500K OSC
ON
OFF
REG. 12V
X3501
VIDEO OUT
VIDEO IN
INPUT/OUTPUT SELECT PACK C.B.A.(VEP03487B)
H
IC3901
AN5753
HD PULSE GENERATOR
ART PAL PACK-4
HD PULSE
FROM SERVO SYSTEM CTL
C/R/S/F/R Ⓛ
DELAY C-LEVEL
VR3802
IC3801
BA7021
Q3802
Q3803
BUFFER
VR3801
DELAY Y-LEVEL
L.P.F.
Q3801
BUFFER
Q3804
BUFFER
IC3802
TL8705P
1/2 H DELAY
CCD
SYNC CLAMP
Q3805
(EE Ⓗ:OFF)
P3801·BP3003
0.32H SKEW C.B.A.
(VEP03490B)
CCD SW
FROM SERVO SYSTEM CTL
PAL
Q8002
PAL P.B. CHROMA
VR8008
VR8001
PAL REC CHROMA
PAL
Q8005
dB
4.43 MHz
VIDEO SIGNAL
FROM ARTIFICIAL PAL
PB CHROMA
TO SERVO SYSTEM CTL
VSS
FROM SERVO SYSTEM CTL
ART V SYNC
FROM SERVO SYSTEM CTL
EE Ⓛ
QR6002
PICTURE VR
REG 5V
VR6801
IC301(VEFH03D)
L.P.F
AGC
EE
VV
FL302
L.P.F.
AMP
AMP
CLAMP
EE-VV DETAIL
(NTSC Ⓗ : ON)
Q803,Q804
NTSC
PAL
DL801
1H DELAY
DL802
2H DELAY
FL802
4.43MHz B.P.F.
4.43MHz
VIDEO IN
L806
L809
L812
C814
C816
C824
627KHz L.P.F.
QR801
(AUTO MESECAM Ⓗ : ON)
LUMINANCE & CHROMINANCE PACK C.B.A.
(VEP03487A)
IC8701
Q8701
BUFFER
CHROMA
Q8702
AMP
Q8707
BUFFER
Q8703
BUFFER
BURST
B.G PULSE
(BURST/CHROMA SEPARATOR)
IC8701
Q8704
MIX
R8710,C8705
-45° PHASE SHIFTER
R8711,C8706
+45° PHASE SHIFTER
IC8702
1/2 DIVIDER
H. PULSE
FROM 0.32H SKEW C.B.A.
H.PULSE
Q8705
(CPSV N-PAL:ON)
CPSV N-PAL Ⓗ
FROM FRONT PANEL SW
Q8706
(EXCEPT N-PAL:ON)
REG. 5V
ARTIFICIAL PAL PACK
(VEP03358A)
IC6001 (BU3761S)
FROM TIMER
CPSV 4.43MHz NTSC Ⓗ
CPSV 4.43 Ⓗ
MESECAM Ⓗ
FROM TIMER
CPSV MESECAM Ⓗ
CPSV MESECAM Ⓗ
PAL KILLER
FROM TIMER
CPSV PAL Ⓗ
CPSV PAL Ⓗ
A.NTSC Ⓗ
A.MESECAM Ⓗ
A.PAL Ⓗ
DL.NTSC Ⓗ
EE Ⓗ
PLAY ON Ⓗ
TO SERVO SYSTEM CTL
PLAY ON Ⓗ
TO INPUT SELECT
DL NTSC Ⓗ
QR6005
QR6004
TO TIMER
A.PAL Ⓗ
TO TIMER
A.MESECAM Ⓗ
FROM SERVO SYSTEM CTL
ROTARY SW

MAIN SIGNAL PATH IN PLAYBACK MODE


IC301 (VEFH03D)
L.P.F.
AGC
CLP
MUTE
AMP
FL302
FL301
QR303 (LP/SLP:ON)
R301 C301 L301
R302 C302 L302
C309 C303 R309 R304
SP Ⓛ/ LP Ⓜ/ SLP Ⓗ
QR302 (LP/SLP:ON)
(SP:ON) QR301
FM DEM
LIM
H.P.F.
DOC PULSE GEN
ENV DET
MAIN EMPHASIS
HEAD AMP OUTPUT
RF SIGNAL 0.5Vp-p
DET
S-SEP
PULSE DELAY
NLE
MAIN EMPH
DEV
FM MOD
DETAIL N.L.E
NL DE
W/D CLIP
MIX
PIC CONT
NC
LOGIC
EE-VV DETAIL
NL EMPHASIS
CLAMP
FREQUENCY
FM MODURATION
SYNC TIP
WHITE LEVEL
PICTURE VR
REG 5V
VR6801
QR305
(NTSC Ⓗ ON)
Q803, Q804
NTSC
PAL
DL801 1H DELAY
DL802 2H DELAY
FL801 5.06MHz B.P.F.
Q802 BUFFER
FL802 1.6MHz L.P.F.
IC801 (VEFH04A)
COMB AMP
PB OUT AMP KILL SW
ACC DET
ACC
MAIN B.M
BURST UP
REC OUT AMP KILL SW
REC CHROMA
0.16Vp-p 5.06MHz
FL802 4.43MHz B.P.F.
4.43MHz
627KHz
627K 3.8M 4.8M Hz
VIDEO IN
PB AMP
RF CHROMA
L806, L809, L812, C814, C816, C824
627KHz L.P.F.
QR801
(AUTO MESECAM Ⓗ : ON)
VCO (REC)
X'TAL OSC (P.B)
APC COMP
APC DET
BURST DET
BURST ADJ
5.02MHz VCO
1/8
1/321
FREQ DET
AFC COMP
SUB BM
ROTARY
DIGITAL M.M
MMV
X801
R815 C821
QR803
(LP Ⓜ/SLP Ⓗ : ON)
LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03487A)
REC P.B.
AMP
COMPARATOR 1
COMPARATOR 2
DETECTOR
IC851 (BA7025L)
EX.REC Ⓗ
B.G.PULSE
4.4MHz TRAP
FL851
4.2M 4.4M (Hz)
SECAM PACK (VEP03452C)
+12V
Q3010
QR3005
(EXCEPT REC :ON)
REC Ⓗ
FROM SERVO SYSTEM CTL
Q3011, Q3012
FREQUENCY COMPENSATOR
QR3001
A.NTSC Ⓗ
(A.NTSC Ⓗ :ON)
P.B.Q LP
VR3013
(LP SLP Ⓗ :ON)
QR3002
VR3012
P.B.Q SP
(SP Ⓗ :ON)
QR3003
LP/SLP Ⓗ
FROM SERVO SYSTEM CTL
BP3002-P502
VR501
REC-Y
QR3004
(AUTO NTSC Ⓗ ON)
MIX
AMP
CURR AMP
IC501 AN3224K
P501-BP3001
LOGIC
P002
VIDEO HEAD L
VIDEO HEAD R
VIDEO HEAD L'
VIDEO HEAD R'
HEAD AMP C.B.A. (VEP05113F)
1ST & 2ND AMP
HEAD SW
H SW
AGC DET
CHROMA AMP
PEAKING AMP
AGC AMP
ENVE SELECT
IC502 AN3311S
L507, C533
PHASE COMPENSATOR
BUFFER
Q501
TP3001
BP3001-P501
FROM SERVO SYSTEM CTL
HEAD AMP SW
ENVE SELECT
HEAD SW
R (35µm)
820 ± 5µm
L' (49µm)
R' (49µm)
L (35µm)

3-4. POWER SCHEMATIC DIAGRAM


AC INLET
VJS1972
F1001
XBA2C16TB0
C1004
VCC0016
C1005
VCC0016
POWER INLET C.B.A.
(VEP01311A)
L1001
ELF18D290A
C1002
0.068
C1006
VCC0021
C1007
VCC0021
D1004
S1WBA60
R1013
2.2
5.5Vp-p
8msec
C1009
400V 82
R1002
33K
R1003
33K
R1005
100K
R1006
100K
C1008
VCC0021
R1004
0.3
C1003
200V 1
R1012
68K
C1011
0.047
D1014
VSD0002
D1015
AP01C
C1010
2KV 330P
(AUTO VOLTAGE SELECTOR)
Q1001
STRD1806E
C1012
16V47
D1002
MA178
R1007
10
-6.1
72.0
C1014
0.0047
(ERROR VOLTAGE DET)
Q1005 2SD638
R1009
1K
C1015
50V10
D1006
MA178
R1010
1K
D1005
MA178
R1011
82
R1020
10
C1030
0.047
T1001
VLT0521
P1
P2
F2
F1
S1
S2
S3
S4
S5
S6
S7
S8
D1007
11EFS4
C1016
100V 100P
D1008
RL4ZLF-M1
C1017
20V680
D1012
MA2200B
C1021
50V100
L1002
ELC07D220
C1022
20V680
D1009
MA185
C1018
50V10
D1017
SV03YS
C1033
16V100
R1014
15K
D1010
31DQ04FC6
C1019
10V330
D1011
AK04
C1020
6V330
C1023
0.01
C1024
0.01
C1025
0.01
IC1001 STK5339B
(MULTI VOLTAGE REGULATOR)
R1019
3.3K
R1017
10K
C1013
10V47
C1029
10V100
C1026
50V10
R1021
0.2
R1023
10K
QR1001
DTA143TV
(VOLTAGE CONTROL)
Q1006
2SD1330
(VOLTAGE CONTROL)
R1018
5600
C1027
0.01
Q1004
2SD1330
(OUTPUT VOLTAGE CONTROL)
R1015
1K
R1016
1K
C1034
10V100
Q1003
2SD1275
(VOLTAGE PROTECTOR)
C1028
16V10
D1013
MA4130L
WAVEFORMS OF Q1001 PINS
1 0.5Vp-p 10μsec
2 2Vp-p 9μsec
3 560Vp-p 10μsec
4 1.1Vp-p 10μsec
IC BLOCK
IC1001 STK5339B
POWER TR
POWER TR
POWER SW
ERROR AMP
ERROR AMP
ERROR AMP
UNREG 14V
POWER OFF Ⓛ
REG 12V
REG 6V
REG 5V
GND
POWER C.B.A.
(VEP01310A)
A
B
C
D
E
1
2
3
4
5
6
7
8
9
10

NOTE 1. WHEN MEASURE THE VOLTAGE OR WAVEFORM ON THE POWER TRANSFORMER CIRCUIT, SET THE GND TERMINAL OF MEASURING POINT AS FOLLOWS.
PRIMARY SIDE ...... Q1001-(5)
SECONDARY SIDE ... TP GND OF MAIN C.B.A.

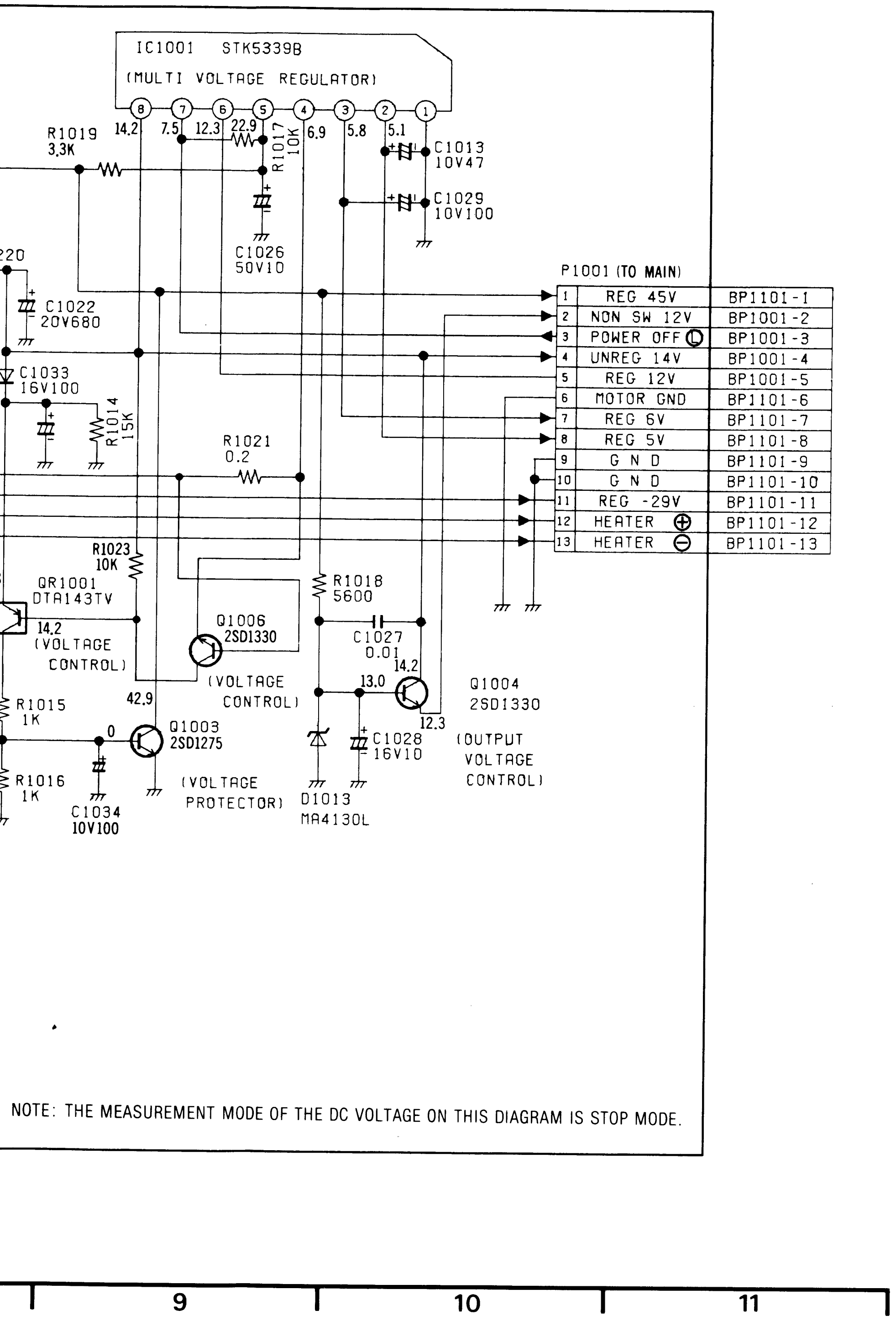
NOTE 2. THE DC VOLTAGE INDICATED IN PRIMARY SIDE IS SHOWN THE VOLTAGE WHEN INPUT AC IS 240V.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRA

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

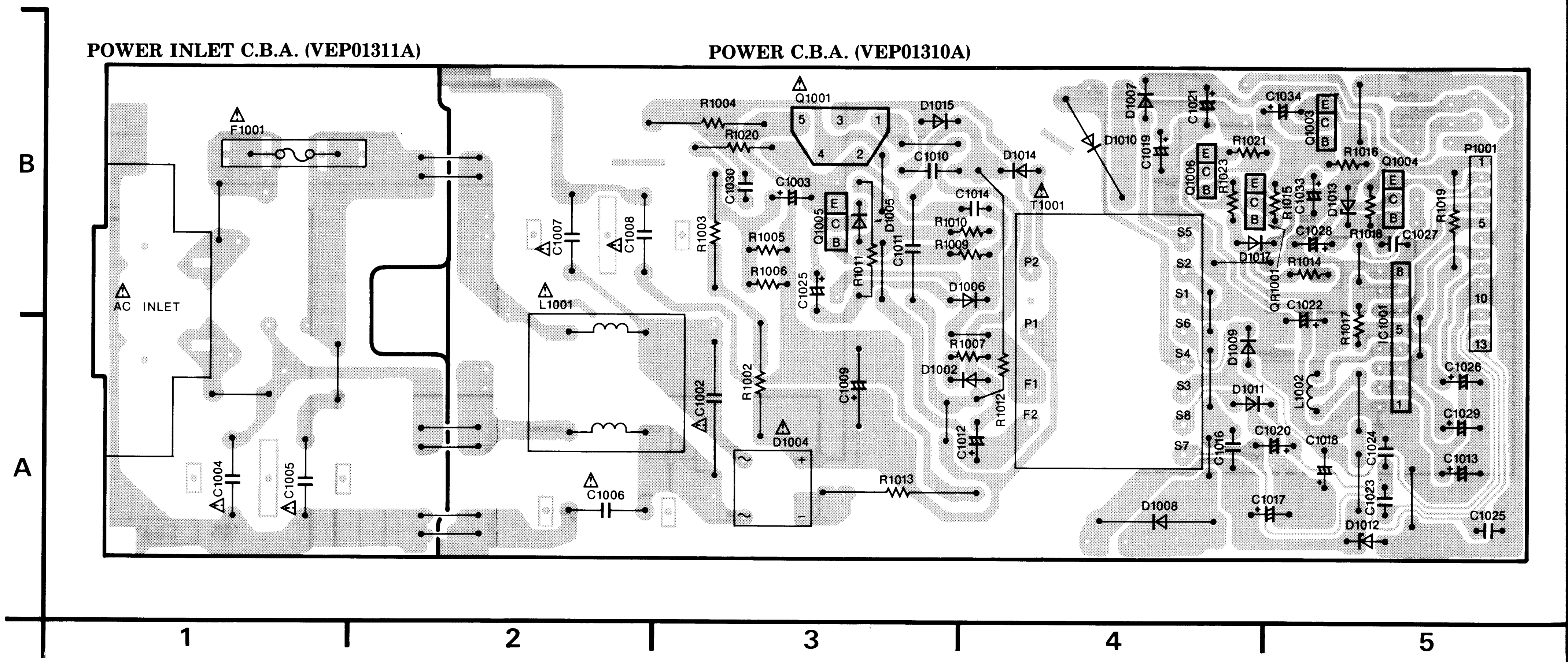
Back Page:
LUMINANCE & CHROMINANCE Section


IC1001 STK5339B
(MULTI VOLTAGE REGULATOR)
R1019
3.3K
R1017
10K
C1013
10V47
C1029
10V100
C1026
50V10
C1022
20V680
C1033
16V100
R1014
15K
R1021
0.2
R1023
10K
QR1001
DTA143TV
(VOLTAGE
CONTROL)
Q1006
2SD1330
(VOLTAGE
CONTROL)
R1018
5600
C1027
0.01
Q1004
2SD1330
(OUTPUT
VOLTAGE
CONTROL)
R1015
1K
R1016
1K
C1034
10V100
Q1003
2SD1275
(VOLTAGE
PROTECTOR)
D1013
MA4130L
C1028
16V10
P1001 (TO MAIN)
1 REG 45V BP1101-1
2 NON SW 12V BP1001-2
3 POWER OFF BP1001-3
4 UNREG 14V BP1001-4
5 REG 12V BP1001-5
6 MOTOR GND BP1101-6
7 REG 6V BP1101-7
8 REG 5V BP1101-8
9 G N D BP1101-9
10 G N D BP1101-10
11 REG -29V BP1101-11
12 HEATER ⊕ BP1101-12
13 HEATER ⊖ BP1101-13
14.2
7.5
12.3
22.9
6.9
5.8
5.1
42.9
13.0
14.2
12.3
0
9
10
11

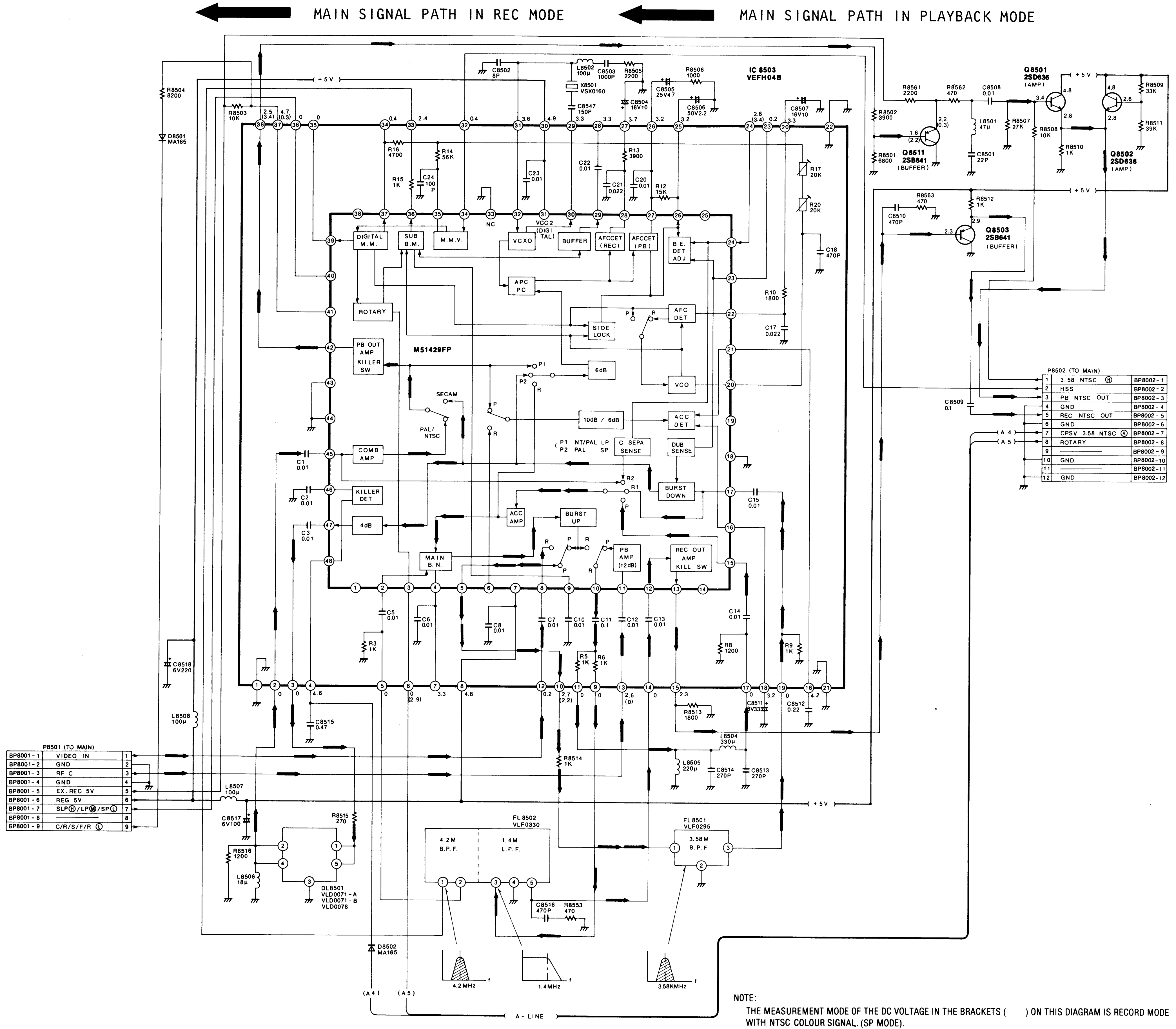
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

POWER C.B.A.	
Transistor	
Q1001	B-3
Q1003	B-5
Q1004	B-5
Q1005	B-3
Q1006	B-4
Transistor & Resistor	
QR1001	B-4
Integrated Circuit	
IC1001	B-5
Connector	
P1001	B-5

ADDRESS INFORMATION


POWER INLET C.B.A. (VEP01311A)
POWER C.B.A. (VEP01310A)
F1001
AC INLET
C1004
C1005
C1007
C1008
L1001
C1006
C1002
R1002
D1004
R1003
C1030
R1004
R1020
Q1001
C1003
Q1005
D1005
R1005
R1006
C1025
R1011
C1011
C1009
R1013
D1015
C1010
C1014
R1010
R1009
D1006
R1007
D1002
C1012
R1012
D1014
T1001
P2
P1
F1
F2
S5
S2
S1
S6
S4
S3
S8
S7
D1010
D1007
C1019
C1021
Q1006
R1023
R1021
C1034
Q1003
R1015
C1033
D1013
R1016
Q1004
C1028
R1018
C1027
R1019
P1001
D1017
R1014
QR1001
C1022
R1017
IC1001
D1009
D1011
L1002
C1016
C1020
C1018
C1024
C1023
C1017
D1008
D1012
C1026
C1029
C1013
C1025
B
A
1
2
3
4
5

3-6. SUB CHROMINANCE SCHEMATIC DIAGRAM (NV-G50PX ONLY)

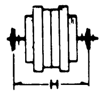
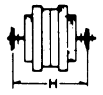
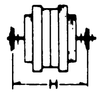
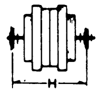
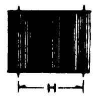
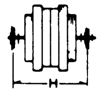
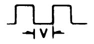
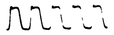
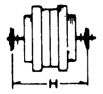
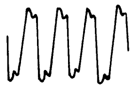
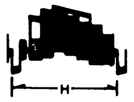
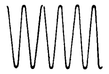
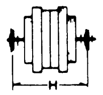
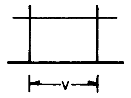
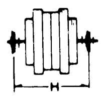
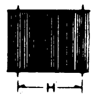
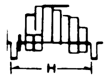
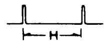
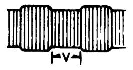
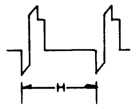
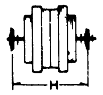
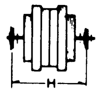


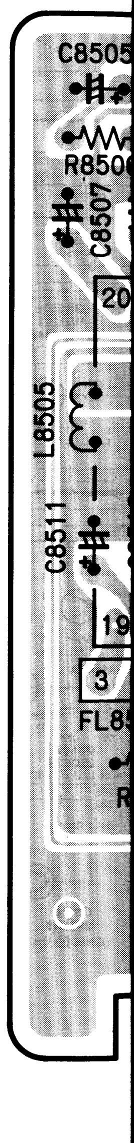
MAIN SIGNAL PATH IN REC MODE
MAIN SIGNAL PATH IN PLAYBACK MODE
IC 8503
VEFH04B
M51429FP
DIGITAL M.M.
SUB B.M.
M.M.V.
VCXO
VCC 2 (DIGITAL)
BUFFER
AFCCET (REC)
AFCCET (PB)
B.E DET ADJ
APC PC
ROTARY
SIDE LOCK
AFC DET
PB OUT AMP KILLER SW
6dB
VCO
SECAM
PAL/NTSC
10dB / 6dB
ACC DET
P1 NT/PAL LP
P2 PAL SP
C SEPA SENSE
DUB SENSE
COMB AMP
KILLER DET
BURST DOWN
ACC AMP
BURST UP
4dB
MAIN B.N.
PB AMP (12dB)
REC OUT AMP KILL SW
NC
Q8501 2SD636 (AMP)
Q8502 2SD636 (AMP)
Q8503 2SB641 (BUFFER)
Q8511 2SB641 (BUFFER)
X8501 VSX0160
D8501 MA165
D8502 MA165
P8501 (TO MAIN)
BP8001-1 VIDEO IN 1
BP8001-2 GND 2
BP8001-3 RF C 3
BP8001-4 GND 4
BP8001-5 EX.REC 5V 5
BP8001-6 REG 5V 6
BP8001-7 SLP®/LPⓂ/SPⓁ 7
BP8001-8 8
BP8001-9 C/R/S/F/R Ⓛ 9
P8502 (TO MAIN)
1 3.58 NTSC ® BP8002-1
2 HSS BP8002-2
3 PB NTSC OUT BP8002-3
4 GND BP8002-4
5 REC NTSC OUT BP8002-5
6 GND BP8002-6
7 CPSV 3.58 NTSC ® BP8002-7
8 ROTARY BP8002-8
9 BP8002-9
10 GND BP8002-10
11 BP8002-11
12 GND BP8002-12
FL8502 VLF0330
4.2M B.P.F.
1.4M L.P.F.
FL8501 VLF0295
3.58M B.P.F
DL8501 VLD0071-A VLD0071-B VLD0078
4.2MHz
1.4MHz
3.58KMHz
(A4)
(A5)
A-LINE
+5V
A B C D E F G
1 2 3 4 5 6 7 8

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

NOTE:
THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS (　) ON THIS DIAGRAM IS RECORD MODE WITH NTSC COLOUR SIGNAL. (SP MODE).
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH NTSC COLOUR SIGNAL (SP MODE).

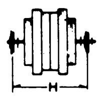
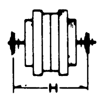
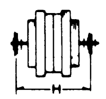
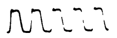
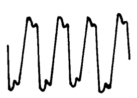
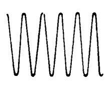
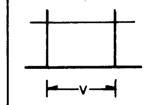
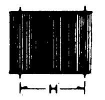
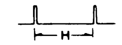
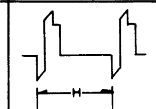
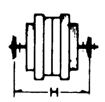
IC8503 (VEFH04B)

PIN NO.	WAVEFORM	PIN NO.	WAVEFORM
2	 0.25Vp-p (P.B)	15	 0.5Vp-p (REC)
3	 0.8Vp-p (REC) 0.9Vp-p (P.B)	17	 0.26Vp-p (REC) 0.2Vp-p (P.B)
5	 0.3Vp-p (REC/P.B)	19	 0.1Vp-p (REC) 0.2Vp-p (P.B)
6	 5.0Vp-p (REC/P.B)	28	 0.7Vp-p (REC/P.B)
9	 0.4Vp-p (REC)	29	 0.76Vp-p (REC/P.B)
10	 0.5Vp-p (REC)	31	 0.5Vp-p (REC/P.B)
10	 0.9Vp-p (P.B)	32	 4.4Vp-p (REC/P.B)
11	 0.4Vp-p (REC) 0.3Vp-p (P.B)	33	 0.8Vp-p (REC/P.B)
12	 0.5Vp-p (REC/P.B)	34	 5.0Vp-p (P.B)
13	 0.4Vp-p (P.B)	35	 0.28Vp-p (REC/P.B)
14	 0.3Vp-p (REC) 0.23Vp-p (P.B)	38	 1.0Vp-p (P.B)



B
A
C8505
R850
C8507
20
L8505
C8511
19
3
FL8

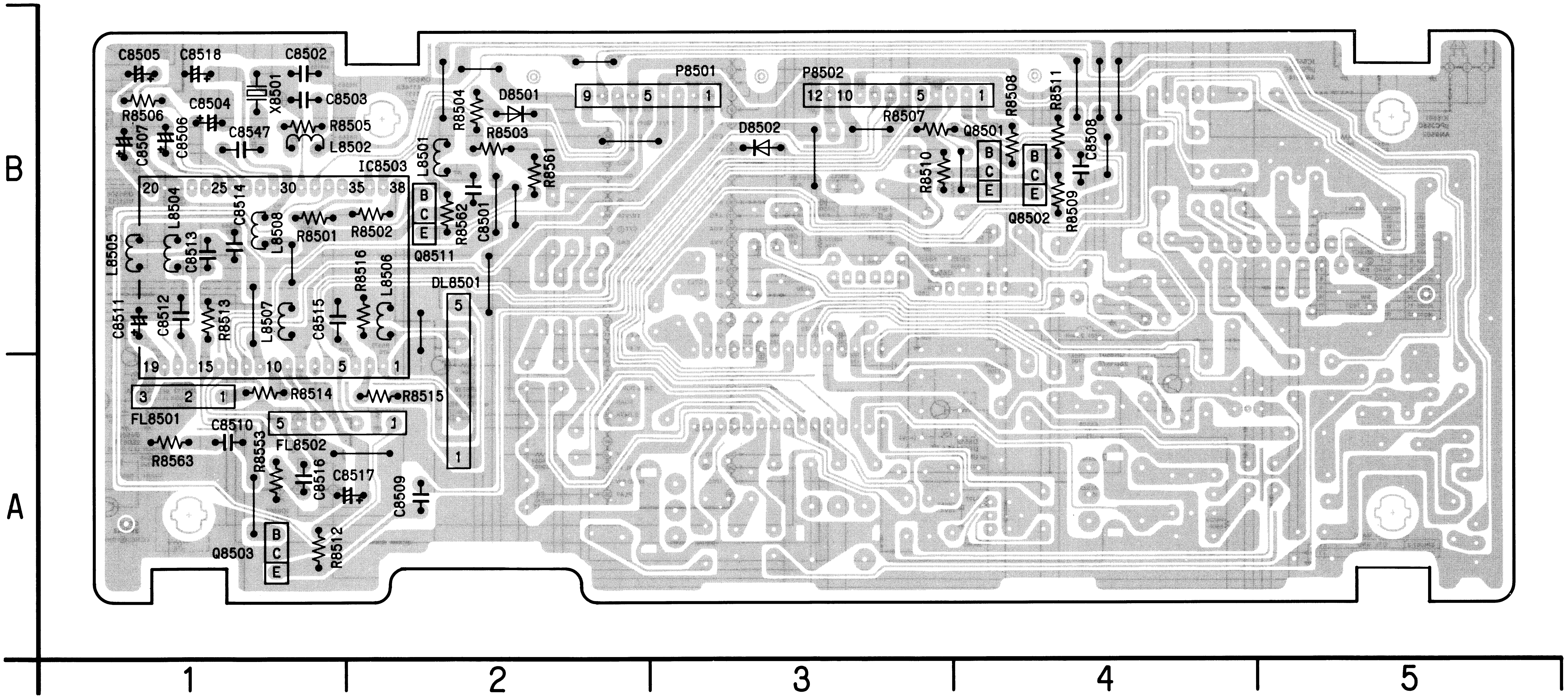
FH04B)

PIN NO.	WAVEFORM
15	 0.5 Vp-p (REC)
17	 0.26 Vp-p (REC) 0.2 Vp-p (P.B)
19	 0.1 Vp-p (REC) 0.2 Vp-p (P.B)
28	 0.7 Vp-p (REC/P.B)
29	 0.76 Vp-p (REC/P.B)
31	 0.5 Vp-p (REC/P.B)
32	 4.4 Vp-p (REC/P.B)
33	 0.8 Vp-p (REC/P.B)
34	 5.0 Vp-p (P.B)
35	 0.28 Vp-p (REC/P.B)
38	 1.0 Vp-p (P.B)

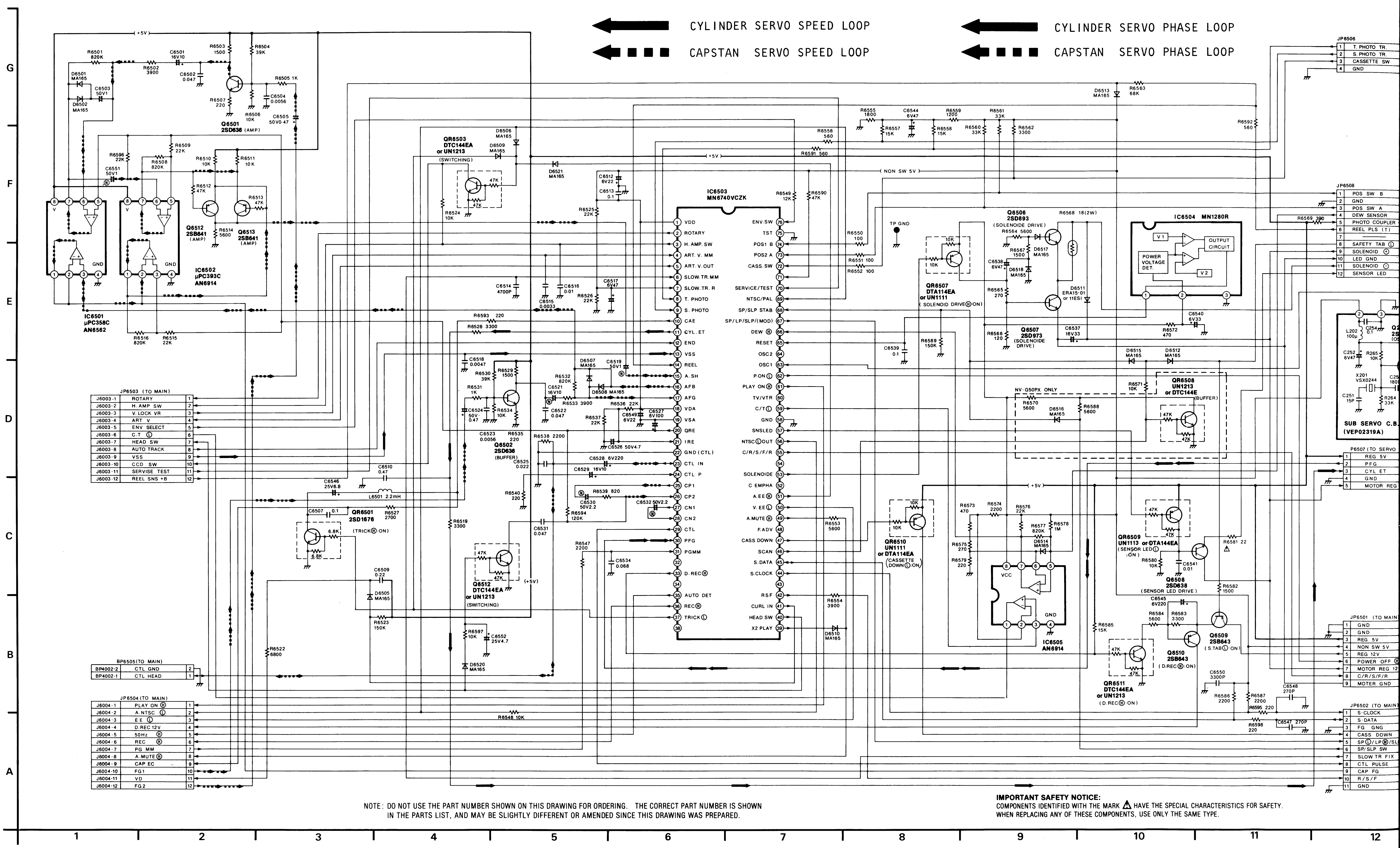
3-7. SUB CHROMINANCE C.B.A. (VEP08124B) (NV-G50PX ONLY)

SUB CHROMINANCE C.B.A.	
Transistor	
Q8501	B-4
Q8502	B-4
Q8503	A-1
Q8511	B-2
Integrated Circuit	
IC8503	B-1
Connector	
P8501	B-3
P8502	B-3

ADDRESS INFORMATION


B
A
1
2
3
4
5
C8505
C8518
C8502
X8501
C8503
C8504
R8506
C8507
C8506
C8547
R8505
L8502
IC8503
20
25
30
35
38
L8505
L8504
C8513
C8514
L8508
R8501
R8502
C8511
C8512
R8513
L8507
C8515
R8516
L8506
19
15
10
5
1
FL8501
3
2
1
R8514
R8515
C8510
FL8502
5
1
R8563
R8553
C8516
C8517
C8509
Q8503
B
C
E
R8512
L8501
R8504
D8501
R8503
R8561
R8562
C8501
Q8511
DL8501
5
1
P8501
9
5
1
P8502
12
10
5
1
D8502
R8507
Q8501
R8510
R8508
R8511
C8508
Q8502
R8509

3-8. SERVO & SYSTEM CONTROL SCHEMATIC DIAGRAM

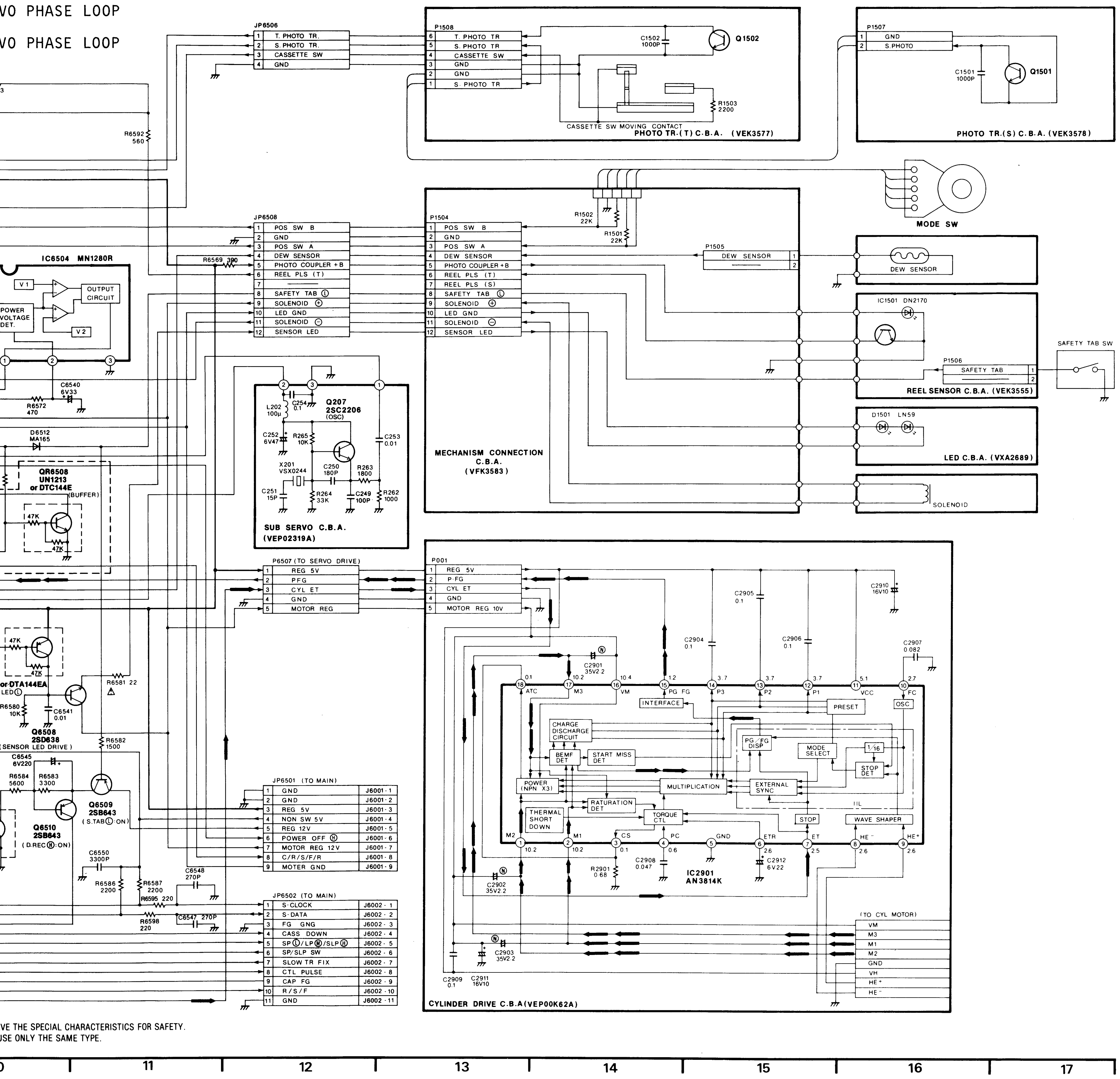


CYLINDER SERVO SPEED LOOP
CAPSTAN SERVO SPEED LOOP
CYLINDER SERVO PHASE LOOP
CAPSTAN SERVO PHASE LOOP
(+5V)
(NON SW 5V)
IC6501 μPC358C AN6562
IC6502 μPC393C AN6914
IC6503 MN6740VCZK
IC6504 MN1280R
IC6505 AN6914
Q6501 2SD636 (AMP)
Q6502 2SD636 (BUFFER)
Q6506 2SD893 (SOLENOIDE DRIVE)
Q6507 2SD973 (SOLENOIDE DRIVE)
Q6508 2SD638 (SENSOR LED DRIVE)
Q6509 2SB643 (S.TAB Ⓛ·ON)
Q6510 2SB643 (D.REC Ⓗ·ON)
Q6512 2SB641 (AMP)
Q6513 2SB641 (AMP)
QR6501 2SD1676 (TRICK Ⓗ·ON)
QR6503 DTC144EA or UN1213 (SWITCHING)
QR6507 DTA114EA or UN1111 (SOLENOID DRIVE Ⓗ·ON)
QR6508 UN1213 or DTC144E (BUFFER)
QR6509 UN1113 or DTA144EA (SENSOR LED Ⓛ·ON)
QR6510 UN1111 or DTA114EA (CASSETTE DOWN Ⓛ·ON)
QR6511 DTC144EA or UN1213 (D.REC Ⓗ·ON)
Q6512 DTC144EA or UN1213 (SWITCHING)
NV-G50PX ONLY
TP GND
L6501 2.2mH
POWER VOLTAGE DET.
OUTPUT CIRCUIT
V1
V2
VCC
GND
1 VDD
2 ROTARY
3 H.AMP.SW
4 ART.V.MM
5 ART.V.OUT
6 SLOW.TR.MM
7 SLOW.TR.R
8 T.PHOTO
9 S.PHOTO
10 CAE
11 CYL.ET
12 END
13 VSS
14 REEL
15 A.SH
16 AFB
17 AFG
18 VDA
19 VSA
20 QRE
21 IRE
22 GND (CTL)
23 CTL IN
24 CTL P
25 CP1
26 CP2
27 CN1
28 CN2
29 CTL
30 PFG
31 PGMM
32
33 D.REC Ⓗ
34
35 AUTO DET
36 REC Ⓗ
37 TRICK Ⓛ
38
76 ENV.SW
75 TST
74 POS1 B
73 POS2 A
72 CASS.SW
71
70 SERVICE/TEST
69 NTSC/PAL
68 SP/SLP STAB
67 SP/LP/SLP/(MODI)
66 DEW
65 RESET
64 OSC2
63 OSC1
62 P.ON Ⓛ
61 PLAY ON Ⓗ
60 TV/VTR
59 C/T Ⓛ
58 GND
57 SNSLED
56 NTSC Ⓛ OUT
55 C/R/S/F/R
54
53 SOLENOIDE
52 C EMPHA
51 A.EE Ⓗ
50 V.EE Ⓛ
49 A.MUTE Ⓗ
48 F.ADV
47 CASS.DOWN
46 SCAN
45 S.DATA
44 S.CLOCK
43
42 RSF
41 CURL IN
40 HEAD SW
39 X2 PLAY
JP6503 (TO MAIN)
J6003-1 ROTARY 1
J6003-2 H.AMP SW 2
J6003-3 V.LOCK VR 3
J6003-4 ART V 4
J6003-5 ENV SELECT 5
J6003-6 C.T Ⓛ 6
J6003-7 HEAD SW 7
J6003-8 AUTO TRACK 8
J6003-9 VSS 9
J6003-10 CCD SW 10
J6003-11 SERVISE TEST 11
J6003-12 REEL SNS +B 12
BP6505 (TO MAIN)
BP4002-2 CTL GND 2
BP4002-1 CTL HEAD 1
JP6504 (TO MAIN)
J6004-1 PLAY ON Ⓗ 1
J6004-2 A.NTSC Ⓛ 2
J6004-3 E E Ⓛ 3
J6004-4 D.REC 12V 4
J6004-5 50Hz Ⓗ 5
J6004-6 REC Ⓗ 6
J6004-7 PG MM 7
J6004-8 A.MUTE Ⓗ 8
J6004-9 CAP EC 9
J6004-10 FG1 10
J6004-11 VD 11
J6004-12 FG2 12
JP6506
1 T. PHOTO TR.
2 S. PHOTO TR.
3 CASSETTE SW
4 GND
JP6508
1 POS SW B
2 GND
3 POS SW A
4 DEW SENSOR
5 PHOTO COUPLER
6 REEL PLS (T)
7 ——
8 SAFETY TAB Ⓛ
9 SOLENOID ⊕
10 LED GND
11 SOLENOID ⊖
12 SENSOR LED
SUB SERVO C.B. (VEP02319A)
P6507 (TO SERVO
1 REG 5V
2 PFG
3 CYL ET
4 GND
5 MOTOR REG
JP6501 (TO MAIN
1 GND
2 GND
3 REG 5V
4 NON SW 5V
5 REG 12V
6 POWER OFF Ⓗ
7 MOTOR REG 12
8 C/R/S/F/R
9 MOTER GND
JP6502 (TO MAIN
1 S-CLOCK
2 S-DATA
3 FG GNG
4 CASS DOWN
5 SP Ⓛ/LP Ⓜ/SL
6 SP/SLP SW
7 SLOW TR FIX
8 CTL PULSE
9 CAP FG
10 R/S/F
11 GND
R6501 820K
R6502 3900
R6503 1500
R6504 39K
R6505 1K
R6506 10K
R6507 220
R6508 820K
R6509 22K
R6510 10K
R6511 10K
R6512 47K
R6513 47K
R6514 5600
R6515 22K
R6516 820K
R6522 6800
R6523 150K
R6524 10K
R6525 22K
R6526 22K
R6527 2700
R6528 3300
R6529 1500
R6530 39K
R6531 1K
R6532 820K
R6533 3900
R6534 10K
R6535 120
R6536 22K
R6537 22K
R6538 2200
R6539 820
R6540 220
R6547 2200
R6548 10K
R6549 12K
R6550 100
R6551 100
R6552 100
R6553 5600
R6554 3900
R6555 1800
R6556 560
R6557 15K
R6558 15K
R6559 1200
R6560 33K
R6561 33K
R6562 3300
R6563 68K
R6564 5600
R6565 270
R6566 120
R6567 1500
R6568 18(2W)
R6569 390
R6570 5600
R6571 10K
R6572 470
R6573 470
R6574 2200
R6575 270
R6576 22K
R6577 820K
R6578 1M
R6579 220
R6580 10K
R6581 22
R6582 1500
R6583 3300
R6584 5600
R6585 15K
R6586 2200
R6587 2200
R6588 5600
R6589 150K
R6590 47K
R6591 560
R6592 560
R6593 220
R6594 120K
R6595 220
R6596 22K
R6597 10K
R6598 220
R6519 3300
C6501 16V10
C6502 0.047
C6503 50V1
C6504 0.0056
C6505 50V0.47
C6507 0.1
C6509 0.22
C6510 0.47
C6512 6V22
C6513 0.1
C6514 4700P
C6515 0.0033
C6516 0.01
C6517 6V47
C6518 0.0047
C6519 50V1
C6521 16V10
C6522 0.047
C6523 0.0056
C6524 50V 0.47
C6525 0.022
C6526 50V4.7
C6527 6V100
C6528 6V220
C6529 16V10
C6530 50V2.2
C6531 0.047
C6532 50V2.2
C6534 0.068
C6537 16V33
C6538 6V47
C6539 0.1
C6540 6V33
C6541 0.01
C6544 6V47
C6545 6V220
C6546 25V6.8
C6547 270P
C6548 270P
C6549 6V22
C6550 3300P
C6551 50V1
C6552 25V4.7
D6501 MA165
D6502 MA165
D6505 MA165
D6506 MA165
D6507 MA165
D6508 MA165
D6509 MA165
D6510 MA165
D6511 ERA15-01 or 11ES1
D6512 MA165
D6513 MA165
D6514 MA165
D6515 MA165
D6516 MA165
D6517 MA165
D6518 MA165
D6520 MA165
D6521 MA165
L202 100μ
C254 0.1
C252 6V47
R265 10K
X201 VSX0244
C251 15P
R264 33K
47K
10K
6.8K
(+5V)

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

Back Page:
SUB CHROMINANCE Section


VO PHASE LOOP
VO PHASE LOOP
JP6506
1 T. PHOTO TR.
2 S. PHOTO TR.
3 CASSETTE SW
4 GND
R6592 560
JP6508
1 POS SW B
2 GND
3 POS SW A
4 DEW SENSOR
5 PHOTO COUPLER +B
6 REEL PLS (T)
7
8 SAFETY TAB Ⓛ
9 SOLENOID ⊕
10 LED GND
11 SOLENOID ⊖
12 SENSOR LED
R6569 390
IC6504 MN1280R
V1
V2
OUTPUT CIRCUIT
POWER VOLTAGE DET.
C6540 6V33
R6572 470
D6512 MA165
QR6508 UN1213 or DTC144E
(BUFFER)
47K
47K
47K
47K
or DTA144EA
LEDⓁ
R6580 10K
C6541 0.01
Q6508 2SD638
(SENSOR LED DRIVE)
R6581 22
R6582 1500
C6545 6V220
R6584 5600
R6583 3300
Q6509 2SB643
(S.TABⓁ:ON)
Q6510 2SB643
(D.RECⒽ:ON)
C6550 3300P
R6586 2200
R6587 2200
R6595 220
R6598 220
C6548 270P
C6547 270P
Q207 2SC2206 (OSC)
L202 100μ
C254 0.1
C252 6V47
R265 10K
C253 0.01
X201 VSX0244
C250 180P
R263 1800
C251 15P
R264 33K
C249 100P
R262 1000
SUB SERVO C.B.A. (VEP02319A)
P6507 (TO SERVO DRIVE)
1 REG 5V
2 PFG
3 CYL ET
4 GND
5 MOTOR REG
JP6501 (TO MAIN)
1 GND J6001-1
2 GND J6001-2
3 REG 5V J6001-3
4 NON SW 5V J6001-4
5 REG 12V J6001-5
6 POWER OFF Ⓗ J6001-6
7 MOTOR REG 12V J6001-7
8 C/R/S/F/R J6001-8
9 MOTER GND J6001-9
JP6502 (TO MAIN)
1 S-CLOCK J6002-1
2 S-DATA J6002-2
3 FG GNG J6002-3
4 CASS DOWN J6002-4
5 SPⓁ/LPⓂ/SLPⒽ J6002-5
6 SP/SLP SW J6002-6
7 SLOW TR FIX J6002-7
8 CTL PULSE J6002-8
9 CAP FG J6002-9
10 R/S/F J6002-10
11 GND J6002-11
P1508
6 T. PHOTO TR
5 S. PHOTO TR
4 CASSETTE SW
3 GND
2 GND
1 S. PHOTO TR
C1502 1000P
Q1502
R1503 2200
CASSETTE SW MOVING CONTACT
PHOTO TR.(T) C.B.A. (VEK3577)
P1507
1 GND
2 S.PHOTO
C1501 1000P
Q1501
PHOTO TR.(S) C.B.A. (VEK3578)
MODE SW
R1502 22K
R1501 22K
P1504
1 POS SW B
2 GND
3 POS SW A
4 DEW SENSOR
5 PHOTO COUPLER +B
6 REEL PLS (T)
7 REEL PLS (S)
8 SAFETY TAB Ⓛ
9 SOLENOID ⊕
10 LED GND
11 SOLENOID ⊖
12 SENSOR LED
P1505
DEW SENSOR
DEW SENSOR
IC1501 DN2170
P1506
SAFETY TAB
SAFETY TAB SW
REEL SENSOR C.B.A. (VEK3555)
D1501 LN59
LED C.B.A. (VXA2689)
SOLENOID
MECHANISM CONNECTION C.B.A. (VFK3583)
P001
1 REG 5V
2 P-FG
3 CYL ET
4 GND
5 MOTOR REG 10V
C2905 0.1
C2910 16V10
C2904 0.1
C2906 0.1
C2907 0.082
C2901 35V2.2
18 ATC 0.1
17 M3 10.2
16 VM 10.4
15 PG FG 1.2
14 P3 3.7
13 P2 3.7
12 P1 3.7
11 VCC 5.1
10 FC 2.7
INTERFACE
PRESET
OSC
CHARGE DISCHARGE CIRCUIT
BEMF DET
START MISS DET
PG/FG DISP
MODE SELECT
1/16
STOP DET
POWER (NPN X3)
MULTIPLICATION
EXTERNAL SYNC
RATURATION DET
THERMAL SHORT DOWN
TORQUE CTL
STOP
WAVE SHAPER
IIL
1 M2 10.2
2 M1 10.2
3 CS 0.1
4 PC 0.6
5 GND
6 ETR 2.6
7 ET 2.5
8 HE⁻ 2.6
9 HE⁺ 2.6
R2901 0.68
C2908 0.047
IC2901 AN3814K
C2912 6V22
C2902 35V2.2
C2903 35V2.2
C2909 0.1
C2911 16V10
(TO CYL MOTOR)
VM
M3
M1
M2
GND
VH
HE⁺
HE⁻
CYLINDER DRIVE C.B.A (VEP00K62A)
0
11
12
13
14
15
16
17

VE THE SPECIAL CHARACTERISTICS FOR SAFETY.
USE ONLY THE SAME TYPE.

SERVO & SYSTEM CONTROL ICs DC VOLTAGE CHART (SP mode/NTSC)

REF. NO.	IC6501										IC6502									
MODE	1	2	3	4	5	6	7	8			1	2	3	4	5	6	7	8		
STOP	2.5	2.5	2.5	0	2.5	2.5	2.5	5.0			0	2.5	2.4	0	2.5	2.4	1.5	5.0		
PLAY	2.5	2.5	2.5	0	2.5	2.5	2.5	5.0			1.6	2.5	2.5	0	2.5	2.4	1.6	5.0		
REC	2.5	2.5	2.5	0	2.5	2.5	2.5	5.0			1.6	2.5	2.5	0	2.5	2.4	1.6	5.0		
F.F.	2.5	2.5	2.5	0	2.5	2.5	2.5	5.0			1.4	2.5	2.5	0	2.5	2.4	1.4	5.0		
REW	2.5	2.5	0	0	2.5	2.5	2.5	5.0			1.7	2.5	2.5	0	2.5	2.4	1.7	5.0		
REF. NO.	IC6503																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	5.0	5.0	0	0.8	0	0	2.5	3.0	3.0	0.2	4.2	3.2	2.8	4.7	2.5	2.5	2.5	5.0	0	2.5
PLAY	5.0	2.9	0	0.9	0	0	0	2.5	3.0	2.5	2.4	3.9	2.5	4.7	2.5	2.5	2.5	5.0	0	2.5
REC	5.0	2.9	0	0.9	0	0	2.5	3.0	3.0	2.5	2.4	0	2.5	4.3	2.5	2.5	2.5	5.0	0	2.5
F.F.	5.0	5.0	0	0.8	0	0	2.5	3.0	3.0	2.6	4.2	3.1	2.5	2.0	3.0	2.5	2.5	5.0	0	2.5
REW	5.0	5.0	0	0.8	0	0	2.5	3.0	3.0	2.6	4.2	3.1	2.5	2.0	2.5	2.5	2.5	5.0	0	2.5
REF. NO.	IC6503																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	2.5	0	2.5	2.5	1.1	3.1	3.9	2.1	0	5.0	0	0	0	0	0	0	5.0	0	0	0
PLAY	2.5	0	2.5	2.5	1.1	2.2	3.9	3.2	3.3	1.3	2.8	0	0	0	0	0	5.0	0	0	2.6
REC	2.5	0	3.1	2.4	2.4	2.3	3.9	3.7	3.3	1.3	2.8	5.0	5.0	5.0	0	4.9	5.0	0	0	2.9
F.F.	2.5	0	2.5	2.5	1.5	1.7	3.6	3.5	2.7	4.9	0	0	0	0	0	0	5.0	0	0	0
REW	2.5	0	2.5	2.5	1.4	1.6	3.6	3.3	3.3	4.9	0	0	0	0	0	0	5.0	0	0	0
REF. NO.	IC6503																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	4.9	2.1	0	4.6	4.1	4.9	0	0	0	0	5.0	5.0	5.0	0	0	5.6	4.4	0	0	0
PLAY	4.9	0	0	4.7	4.2	4.9	0	0	0	5.0	0	5.0	5.0	0	5.0	0	4.4	0	0	0
REC	4.9	0	0	4.6	4.3	4.9	0	0	0	0	5.0	5.0	5.0	0	5.0	0	4.4	0	0	0
F.F.	4.9	0	0	4.6	4.4	4.9	0	0	0	0	5.0	5.0	5.0	0	0	0	4.4	0	0	0
REW	4.9	5.0	0	4.6	4.2	4.9	0	0	0	0	5.0	5.0	5.0	0	0	0	4.4	0	0	0
REF. NO.	IC6503																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76				
STOP	0	0	–	–	5.0	0	0	0.3	0	5.0	5.0	2.0	5.0	2.0	0	4.6				
PLAY	5.0	0	–	–	5.0	0	0	0.3	0	5.0	5.0	2.0	0	5.0	0	4.5				
REC	0	0	–	–	5.0	0	0	0.3	0	5.0	5.0	2.0	0	5.0	0	4.4				
F.F.	0	0	–	–	5.0	0	0	0.3	0	5.0	5.0	2.0	5.0	2.0	0	4.6				
REW	0	0	–	–	5.0	0	0	0.3	0	5.0	5.0	2.0	5.0	2.0	0	4.6				
REF. NO.	IC6504										IC6505									
MODE	1	2	3								1	2	3	4	5	6	7	8		
STOP	5.0	5.0	0								0	1.5	0	0	0	0.3	0	5.0		
PLAY	5.0	5.0	0								0	1.5	0	0	0	0.3	0	5.0		
REC	5.0	5.0	0								0	1.5	0	0	0	0.3	0	5.0		
F.F.	5.0	5.0	0								0	1.5	0	0	0	0.3	0	5.0		
REW	5.0	5.0	0								0	1.5	0	0	0	0.3	0	5.0		

SERVO & SYSTEM CONTROL TRANSISTORs DC VOLTAGE CHART (SP mode/NTSC)

REF. NO.	Q6501			Q6502			Q6503			Q6504			Q6505			Q6506		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0.3	2.6	1.0	0.3	2.7	1.0	0	0	0.6	0.7	5.0	1.2	0	4.6	0.2	13.1	13.1	4.6
PLAY	0.4	2.5	1.0	0.3	2.7	1.0	0	0	0.5	2.4	5.0	1.0	0.2	3.2	0.8	9.9	9.9	1.4
REC	0.4	2.5	1.0	0.3	2.7	1.0	0	0	0.5	3.1	5.0	2.5	0.4	2.0	1.0	9.9	9.9	1.4
F.F.	0.3	2.5	1.0	0.3	2.7	1.0	0	0	0.5	2.9	5.0	1.6	0.3	2.3	0.9	13.1	13.1	4.5
REW	0.4	2.5	1.0	0.3	2.7	1.0	0	0	0.5	2.9	5.0	1.5	0.3	2.3	0.9	13.0	13.0	4.5
REF. NO.	Q6507			Q6508			Q6509			Q6510			Q6511			Q6512		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	13.1	0	0.8	13.1	0.6	12.2	12.2	11.4	12.2	0.4	12.2	1.4	1.4	0.9	0	1.4	1.4
PLAY	0	9.9	0	0.8	9.9	0.6	12.2	12.2	11.4	12.2	0.4	12.2	1.6	0.9	1.7	1.6	0	1.8
REC	0	9.9	0	0.8	9.9	0.6	12.1	12.0	11.4	12.0	11.9	11.3	1.6	1.0	1.7	1.6	1.0	1.8
F.F.	0	13.1	0	0.8	13.1	0.6	12.2	12.2	11.4	12.2	0.4	12.2	1.4	1.0	1.5	1.4	1.0	1.7
REW	0	13.1	0	0.8	13.0	0.6	12.2	12.2	11.4	12.2	0.4	12.2	1.7	0.7	1.9	1.7	0.7	1.7
REF. NO.	QR6501			QR6502			QR6503			QR6507			QR6508			QR6509		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	0	5.0	0	0	5.0	0	0	4.5	5.0	0	5.0	0	0	4.9	5.0	0.6	4.4
PLAY	0	0	5.0	0	0	5.0	0	0	4.5	5.0	0	5.0	0	0	4.9	5.0	0.6	4.4
REC	0	0	5.0	0	0	5.0	0	0	4.5	5.0	0	5.0	0	0	4.9	5.0	0.6	4.4
F.F.	0	0	5.0	0	0	5.0	0	0	5.0	5.0	0	5.0	0	0	4.9	5.0	0.6	4.4
REW	0	0	3.5	0	0	5.0	0	0	4.5	5.0	0	5.0	0	0	4.9	5.0	0.6	4.4
REF. NO.	QR6510			QR6511														
MODE	E	C	B	E	C	B												
STOP	5.0	4.8	0	0	12.2	0												
PLAY	5.0	4.8	0	0	12.2	0												
REC	5.0	4.8	0	0	0	5.0												
F.F.	5.0	4.8	0	0	12.2	0												
REW	5.0	4.8	0	0	12.2	0												

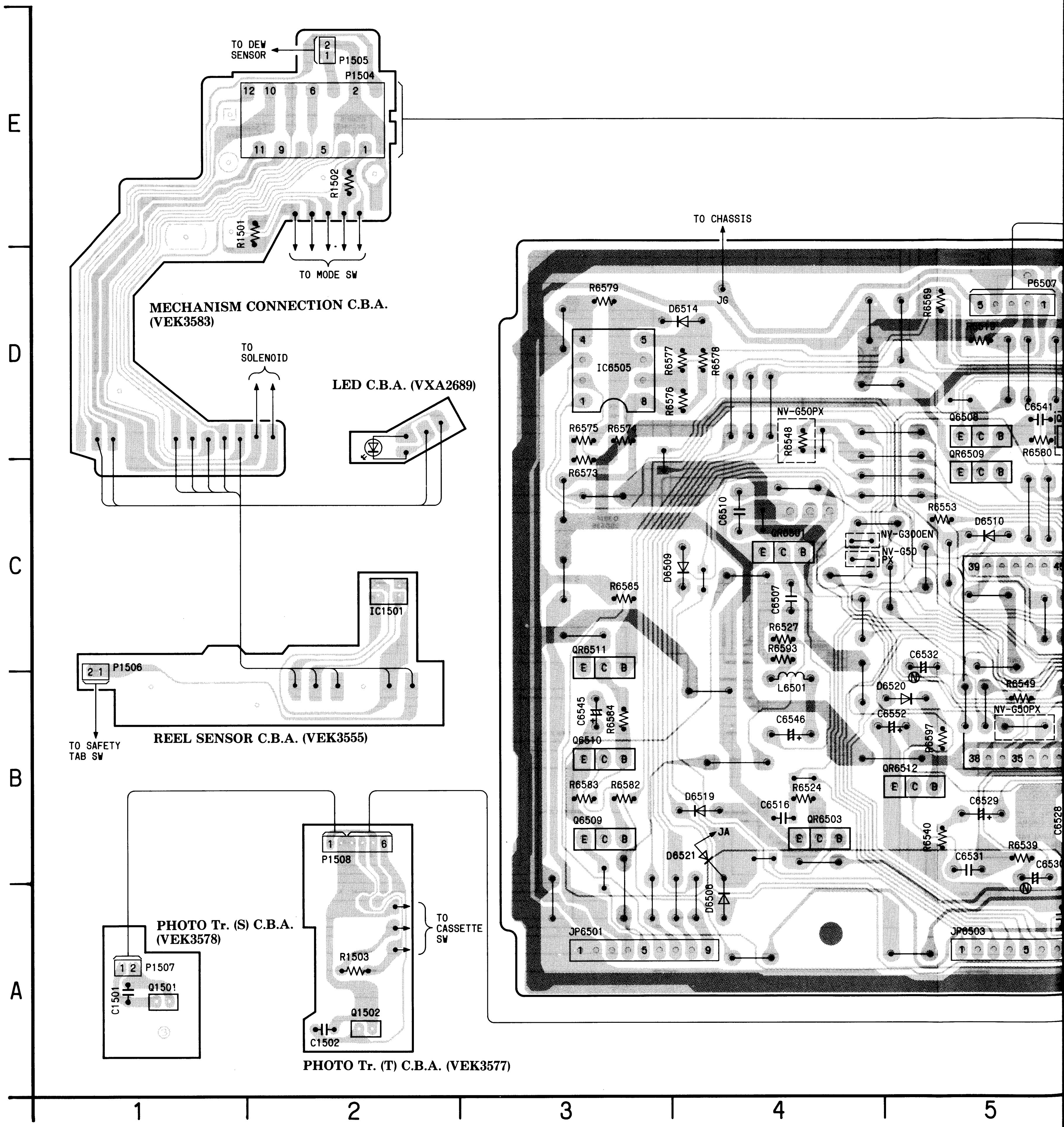
SERVO & SYSTEM CONTROL ICs DC VOLTAGE CHART (SP mode/PAL)

REF. NO.	IC6501										IC6502									
MODE	1	2	3	4	5	6	7	8			1	2	3	4	5	6	7	8		
STOP	2.5	2.5	2.5	0	2.5	2.5	2.5	5.0			0	2.5	2.4	0	2.5	2.4	1.5	5.0		
PLAY	2.5	2.5	2.5	0	2.5	2.5	2.5	5.0			1.6	2.5	2.5	0	2.5	2.4	1.6	5.0		
REC	2.5	2.5	2.5	0	2.5	2.5	2.5	5.0			1.6	2.5	2.5	0	2.5	2.4	1.6	5.0		
F.F.	2.5	2.5	2.5	0	2.5	2.5	2.5	5.0			1.4	2.5	2.5	0	2.5	2.4	1.4	5.0		
REW	2.5	2.5	0	0	2.5	2.5	2.5	5.0			1.7	2.5	2.5	0	2.5	2.4	1.7	5.0		
REF. NO.	IC6503																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	5.0	5.0	0	0	0	0	2.5	3.0	3.0	0.2	4.2	3.2	2.5	4.7	2.5	2.5	2.5	5.0	0	2.5
PLAY	5.0	3.0	0	0	0	0	2.5	3.0	3.0	2.5	2.4	2.4	2.9	4.2	2.5	2.5	2.5	5.0	0	2.5
REC	5.0	3.0	0	0	0	0	2.5	3.0	3.0	2.5	2.4	0	2.5	4.2	2.5	2.5	2.5	5.0	0	2.5
F.F.	5.0	5.0	0	0	0	0	2.5	3.0	3.0	2.6	4.2	3.1	2.5	2.0	3.0	2.5	2.5	5.0	0	2.5
REW	5.0	5.0	0	0	0	0	2.5	3.0	3.0	2.6	4.2	3.1	2.5	2.0	2.5	2.5	2.5	5.0	0	2.5
REF. NO.	IC6503																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	2.5	0	2.5	2.5	1.1	3.1	3.9	2.1	0	5.0	0	0	0	0	0	0	5.0	0	0	0
PLAY	2.5	0	2.5	2.5	1.2	2.2	3.9	3.0	3.3	1.2	2.9	0	0	0	5.0	0	5.0	0	0	3.0
REC	2.5	0	3.3	2.4	2.4	2.2	3.7	3.7	3.3	1.2	2.9	5.0	5.0	5.0	5.0	4.9	5.0	0	0	3.0
F.F.	2.5	0	2.5	2.5	1.5	1.7	3.6	3.5	2.7	4.9	0	0	0	0	5.0	0	5.0	0	0	0
REW	2.5	0	2.5	2.5	1.4	1.6	3.6	3.3	3.3	4.9	0	0	0	0	5.0	0	5.0	0	0	0
REF. NO.	IC6503																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	4.9	2.1	0	4.6	4.1	4.9	0	0	0	0	5.0	5.0	5.0	0	0	5.0	4.4	0	0	0
PLAY	4.9	0	0	4.6	4.2	4.9	0	0	0	5.0	0	5.0	5.0	0	5.0	0	4.4	0	0	0
REC	4.9	0	0	4.6	4.2	4.9	0	0	0	0	5.0	5.0	5.0	0	5.0	5.0	4.4	0	0	0
F.F.	4.9	0	0	4.6	4.4	4.9	0	0	0	0	5.0	5.0	5.0	0	0	0	4.4	0	0	0
REW	4.9	5.0	0	4.6	4.2	4.9	0	0	0	0	5.0	5.0	5.0	0	0	0	4.4	0	0	0
REF. NO.	IC6503																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76				
STOP	0	0	2.4	–	5.0	0	0	0.3	4.9	5.0	5.0	2.0	5.0	2.0	0	4.6				
PLAY	5.0	0	–	–	5.0	0	0	0.3	4.9	5.0	5.0	2.0	0	5.0	0	4.5				
REC	0	0	–	–	5.0	0	0	0.3	4.9	5.0	5.0	2.0	0	5.0	0	4.4				
F.F.	0	0	–	–	5.0	0	0	0.3	3.6	5.0	5.0	2.0	5.0	2.0	0	4.6				
REW	0	0	–	–	5.0	0	0	0.3	3.6	5.0	5.0	2.0	5.0	2.0	0	4.6				
REF. NO.	IC6504										IC6505									
MODE	1	2	3								1	2	3	4	5	6	7	8		
STOP	5.0	5.0	0								0	1.5	0	0	0	0.3	0	5.0		
PLAY	5.0	5.0	0								0	1.5	0	0	0	0.3	0	5.0		
REC	5.0	5.0	0								0	1.5	0	0	0	0.3	0	5.0		
F.F.	5.0	5.0	0								0	1.5	0	0	0	0.3	0	5.0		
REW	5.0	5.0	0								0	1.5	0	0	0	0.3	0	5.0		

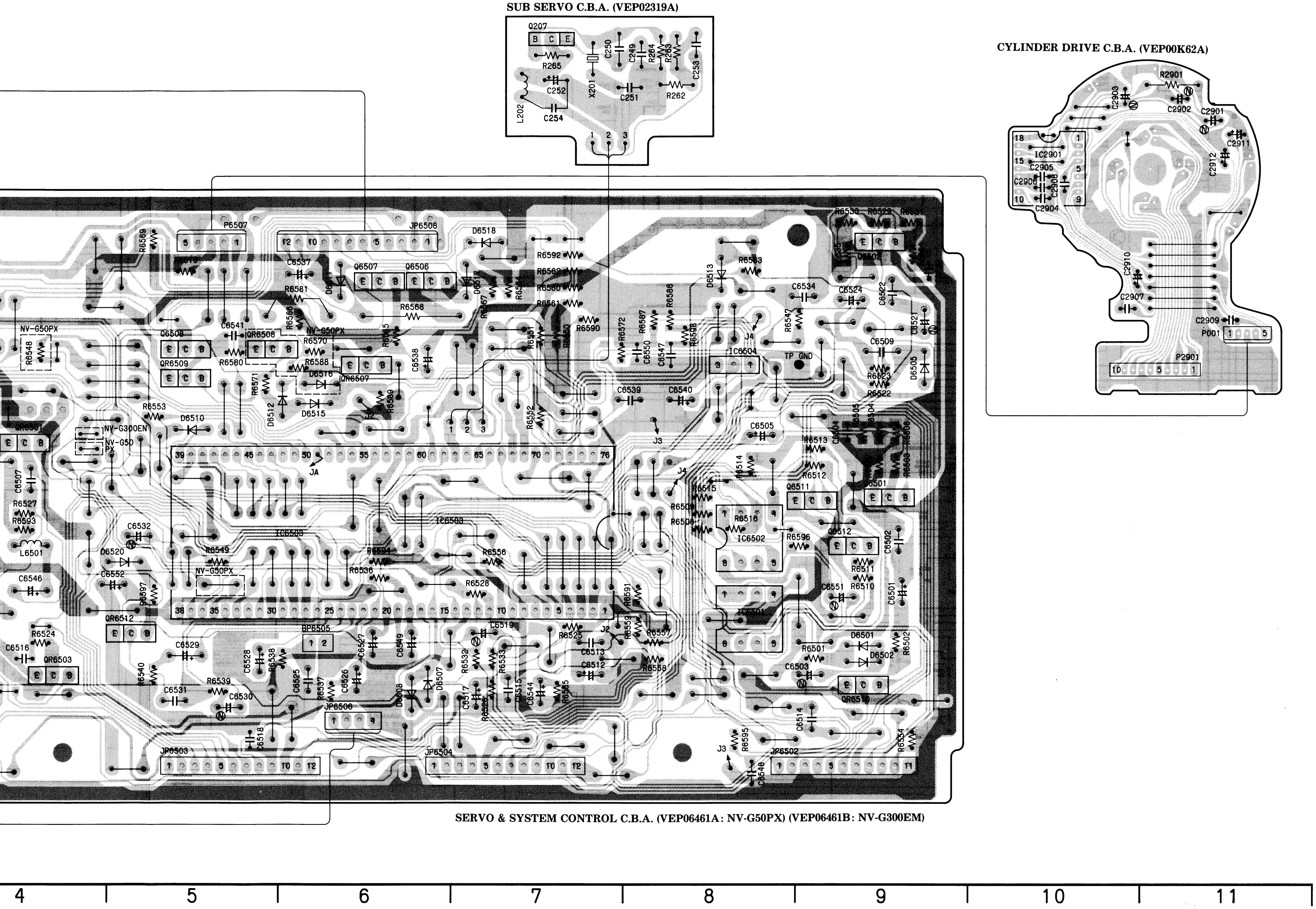
SERVO & SYSTEM CONTROL TRANSISTORs DC VOLTAGE CHART (SP mode/PAL)

REF. NO.	Q6501			Q6502			Q6503			Q6504			Q6505			Q6506		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0.3	2.6	1.0	0.3	2.7	1.0	0	0	0.6	0.7	5.0	1.2	0	4.6	0.2	13.1	13.1	4.6
PLAY	0.4	2.5	1.0	0.3	2.7	1.0	0	0	0.5	2.4	5.0	1.2	0.2	3.3	0.8	9.8	9.9	1.4
REC	0.4	2.6	1.0	0.3	2.7	1.0	0	0	0.5	3.1	5.0	2.5	0.4	2.0	1.0	9.8	9.8	1.3
F.F.	0.4	2.5	1.0	0.3	2.7	1.0	0	0	0.5	2.9	5.0	1.6	0.3	2.3	0.9	13.0	13.0	4.5
REW	0.4	2.5	1.0	0.3	2.7	1.0	0	0	0.5	2.9	5.0	1.4	0.3	2.4	0.9	13.1	13.1	4.6
REF. NO.	Q6507			Q6508			Q6509			Q6510			Q6511			Q6512		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	13.1	0	0.8	13.1	0.6	12.2	12.2	11.4	12.2	0	12.2	1.4	1.4	0.9	0	1.4	1.4
PLAY	0	9.9	0	0.9	9.9	0.7	12.2	12.2	11.4	12.2	0	12.2	1.6	0.9	1.7	1.6	0.9	1.8
REC	0	9.8	0	0.9	9.8	0.8	12.1	12.0	11.4	12.0	11.9	11.3	1.5	1.0	1.7	1.6	1.0	1.8
F.F.	0	13.0	0	0.8	13.0	0.6	12.2	12.2	11.4	12.2	0	12.2	1.4	1.0	1.5	1.4	1.0	1.7
REW	0	13.1	0	0.8	13.1	0.6	12.2	12.2	11.4	12.2	0	12.2	1.7	0.7	1.9	1.7	0.7	1.7
REF. NO.	QR6501			QR6502			QR6503			QR6507			QR6508			QR6509		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	0	5.0	0	0	5.0	0	0	4.5	5.0	0	5.0	0	0	4.9	5.0	0.6	4.4
PLAY	0	0	5.0	0	0	5.0	0	0	4.5	5.0	0	5.0	0	0	4.9	5.0	0.7	4.4
REC	0	0	5.0	0	0	5.0	0	0	4.5	5.0	0	5.0	0	0	4.9	5.0	0.6	4.4
F.F.	0	0	5.0	0	0	5.0	0	0	5.0	5.0	0	5.0	0	0	0	5.0	0.6	4.4
REW	0	0	5.0	0	0	5.0	0	0	4.5	5.0	0	0	0	0	4.9	5.0	0.6	4.4
REF. NO.	QR6510			QR6511														
MODE	E	C	B	E	C	B												
STOP	5.0	4.8	0	0	12.2	0												
PLAY	5.0	4.8	0	0	12.2	0												
REC	5.0	4.9	0	0	0	5.0												
F.F.	5.0	4.8	0	0	12.2	0												
REW	5.0	4.8	0	0	12.2	0												

3-9. SERVO & SYSTEM CONTROL C.B.A. (VEP06461A: NV-G50PX) (VEP06461B: NV-G300EM), SU


E
D
C
B
A
1
2
3
4
5
TO DEW SENSOR
P1505
P1504
R1502
R1501
TO MODE SW
MECHANISM CONNECTION C.B.A. (VEK3583)
TO SOLENOID
LED C.B.A. (VXA2689)
IC1501
P1506
TO SAFETY TAB SW
REEL SENSOR C.B.A. (VEK3555)
PHOTO Tr. (S) C.B.A. (VEK3578)
P1507
C1501
Q1501
P1508
TO CASSETTE SW
R1503
Q1502
C1502
PHOTO Tr. (T) C.B.A. (VEK3577)
TO CHASSIS
JG
R6579
D6514
R6569
P6507
IC6505
R6577
R6578
R6576
NV-G50PX
R6548
Q6508
QR6509
C6541
R6580
R6575
R657
R6573
C6510
QR6501
R6553
D6510
NV-G300EM
NV-G50PX
D6509
R6565
C6507
R6527
R6593
L6501
QR6511
C6532
D6520
R6549
C6545
R6584
C6546
C6552
R6597
Q6510
QR6512
R6583
R6582
D6519
R6524
C6516
QR6503
C6529
Q6509
JA
R6540
R6539
D6521
C6531
C653
C6528
D6506
JP6501
JP6503
39
38
35

EP06461B: NV-G300EM), SUB SERVO C.B.A. (VEP02319A) & CYLINDER DRIVE C.B.A. (VEP00K62A)



SUB SERVO C.B.A. (VEP02319A)

CYLINDER DRIVE C.B.A. (VEP00K62A)

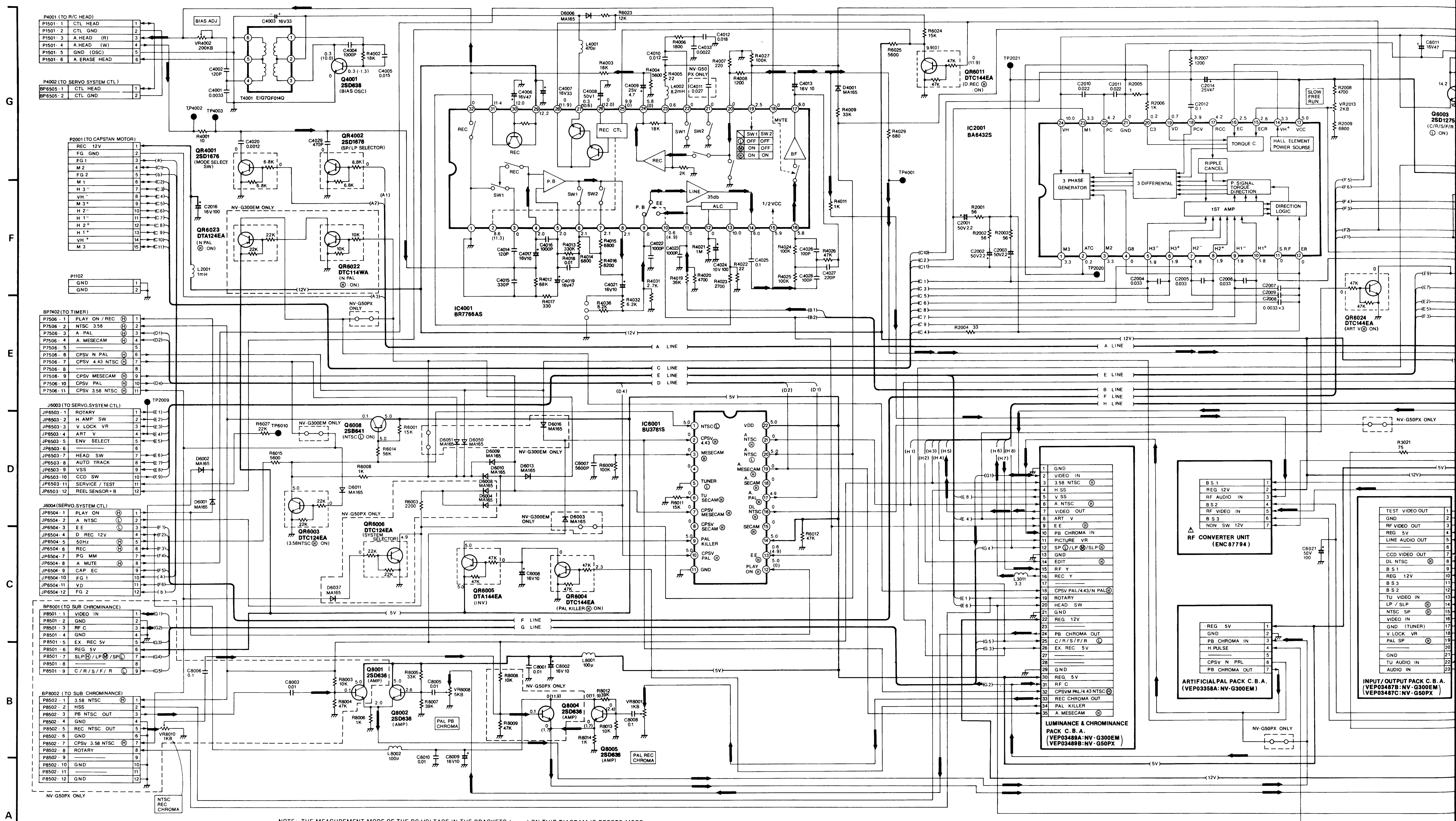
SERVO & SYSTEM CONTROL C.B.A. (VEP06461A: NV-G50PX) (VEP06461B: NV-G300EM)

Q207
R265
C250
C249
R264
R263
C253
X201
C252
C251
R262
L202
C254
R2901
C2903
C2902
C2901
C2911
C2912
IC2901
C2905
C2908
C2906
C2904
C2910
C2907
C2909
P001
P2901
TP GND
P6507
JP6508
D6518
Q6507
Q6506
IC6504
IC6503
IC6502
IC6501
IC6505
BP6505
JP6506
JP6503
JP6504
JP6502
QR6509
QR6508
QR6507
QR6512
QR6503
QR6510
QR6511
NV-G50PX
NV-G300EN
L6501
J3
J4
JA
4
5
6
7
8
9
10
11

SERVO & SYSTEM CONTROL C.B.A.	
Transistor	
Q207	E-7
Q1501	A-1
Q1502	A-2
Q6501	C-9
Q6502	D-9
Q6506	D-6
Q6507	D-6
Q6508	D-5
Q6509	B-3
Q6510	B-3
Q6511	C-9
Q6512	B-9
Transistor & Resistor	
QR6501	C-4
QR6503	B-4
QR6507	C-6
QR6508	D-5
QR6509	C-5
QR6510	B-9
QR6511	C-3
QR6512	B-5
Integrated Circuit	
IC1501	C-2
IC2901	E-10
IC6501	B-8
IC6502	C-8
IC6503	C-6
IC6504	B-9
IC6505	D-3
Test Point	
TP GND	D-8
Connector	
BP6505	B-6
JP6501	A-3
JP6502	A-8
JP6503	A-5
JP6504	A-7
JP6506	B-6
JP6508	D-6
P001	D-11
P1504	E-2
P1505	E-2
P1506	C-1
P1507	A-1
P1508	B-2
P2901	D-11
P6507	D-5

ADDRESS INFORMATION

3-10. MAIN SCHEMATIC DIAGRAM


MAIN SIGNAL PATH IN REC MODE
MAIN SIGNAL PATH IN PLAYBACK MODE
P4001 (TO R/C HEAD)
P1501-1 CTL HEAD
P1501-2 CTL GND
P1501-3 A.HEAD (R)
P1501-4 A.HEAD (W)
P1501-5 GND (OSC)
P1501-6 A.ERASE HEAD
P4002 (TO SERVO SYSTEM CTL)
BP6505-1 CTL HEAD
BP6505-2 CTL GND
BIAS ADJ
VR4002 200KB
T4001 EIQ7OF014Q
Q4001 2SD638 (BIAS OSC)
P2001 (TO CAPSTAN MOTOR)
QR4001 2SD1876 (MODE SELECT SW)
QR4002 2SD1876 (SP/LP SELECTOR)
NV-G300EM ONLY
QR6023 DTA124EA (N PAL Ⓡ: ON)
QR6022 DTC114WA (N PAL Ⓡ: ON)
L2001 1mH
P1102
BP7402 (TO TIMER)
J6003 (TO SERVO.SYSTEM CTL)
J6004 (SERVO.SYSTEM CTL)
BP8001 (TO SUB CHROMINANCE)
BP8002 (TO SUB CHROMINANCE)
NV-G50PX ONLY
NTSC REC CHROMA
IC4001 BR7766AS
REC CTL
P.B
REC
LINE 35db
ALC
1/2VCC
BF
MUTE
SW1 SW2
Q6008 2SB641 (NTSC Ⓛ: ON)
QR6003 DTC124EA (3.58NTSC Ⓡ: ON)
QR6006 DTC124EA (SYSTEM SELECTOR)
QR6005 DTA144EA (INV)
QR6004 DTC144EA (PAL KILLER Ⓡ: ON)
IC6001 BU3761S
Q8001 2SD636 (AMP)
Q8002 2SD636 (AMP)
Q8004 2SD636 (AMP)
Q8005 2SD636 (AMP)
PAL PB CHROMA
PAL REC CHROMA
A LINE
C LINE
E LINE
D LINE
B LINE
F LINE
H LINE
G LINE
5V
12V
IC2001 BA6432S
QR6011 DTC144EA (D.REC Ⓡ ON)
3 PHASE GENERATOR
3 DIFFERENTIAL
RIPPLE CANCEL
TORQUE C
HALL ELEMENT POWER SOURSE
P.SIGNAL TORQUE DIRECTION
1ST AMP
DIRECTION LOGIC
SLOW FREE RUN
Q6003 2SD1275 (C/R/S/F/R Ⓛ ON)
QR6024 DTC144EA (ART V Ⓗ: ON)
TP2021
TP4001
TP2020
TP2009
TP4002
TP4003
TP6010
LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03489A: NV-G300EM) (VEP03489B: NV-G50PX)
RF CONVERTER UNIT (ENC87794)
ARTIFICIAL PAL PACK C.B.A. (VEP03358A: NV-G300EM)
INPUT/OUTPUT PACK C.B.A. (VEP03487B: NV-G300EM) (VEP03487C: NV-G50PX)
G
F
E
D
C
B
A

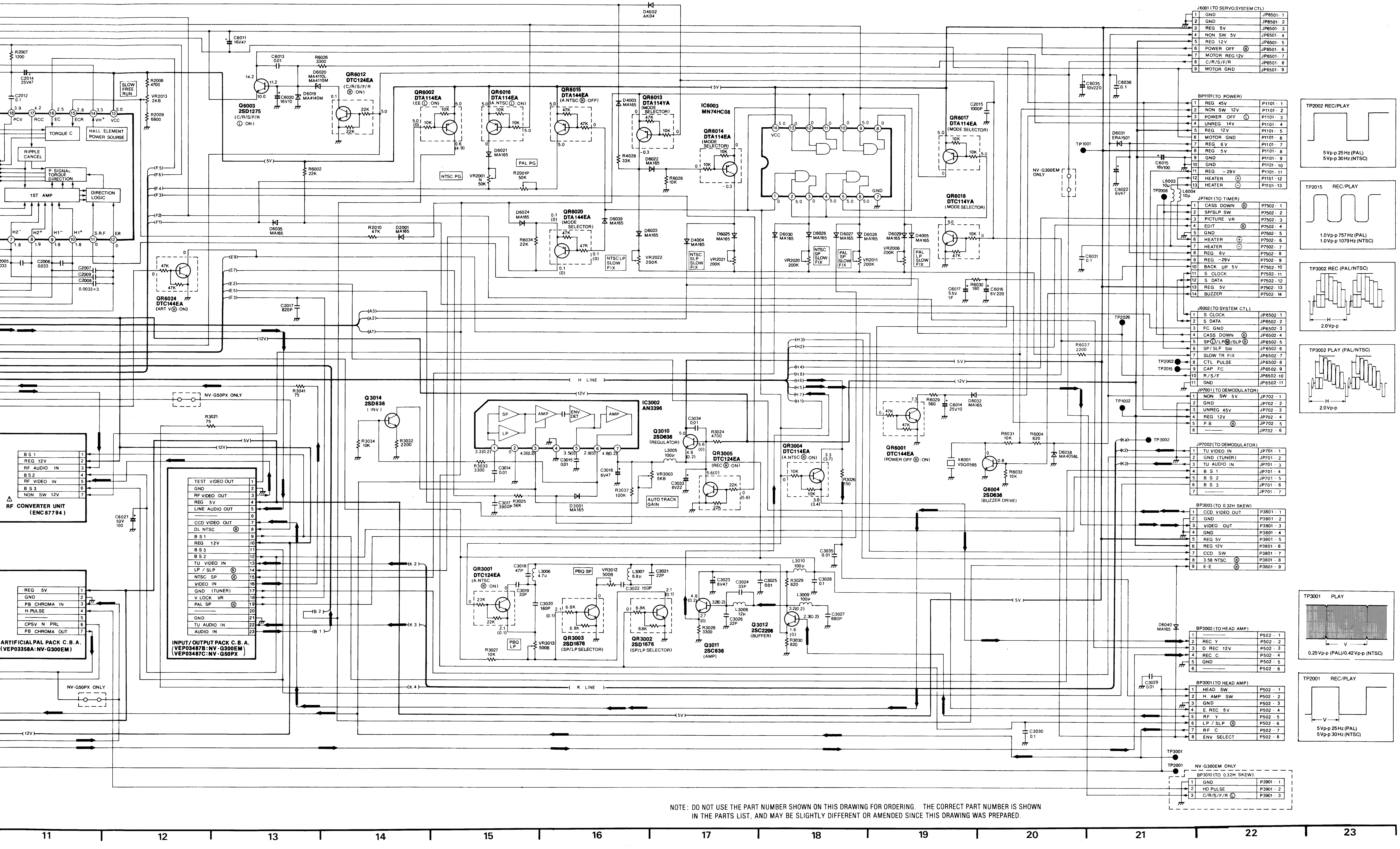
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS (　　) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP MODE)

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

1 2 3 4 5 6 7 8 9 10 11 12

Back Page:
SERVO & SYSTEM CONTROL Section

ATH IN PLAYBACK MODE


J6001 (TO SERVO.SYSTEM CTL)
1 GND JP6501-1
2 GND JP6501-2
3 REG 5V JP6501-3
4 NON SW 5V JP6501-4
5 REG 12V JP6501-5
6 POWER OFF JP6501-6
7 MOTOR REG 12V JP6501-7
8 C/R/S/F/R JP6501-8
9 MOTOR GND JP6501-9
BP1101 (TO POWER)
1 REG 45V P1101-1
2 NON SW 12V P1101-2
3 POWER OFF P1101-3
4 UNREG 14V P1101-4
5 REG 12V P1101-5
6 MOTOR GND P1101-6
7 REG 6V P1101-7
8 REG 5V P1101-8
9 GND P1101-9
10 GND P1101-10
11 REG −29V P1101-11
12 HEATER ⊕ P1101-12
13 HEATER ⊖ P1101-13
JP7401 (TO TIMER)
1 CASS DOWN P7502-1
2 SP/SLP SW P7502-2
3 PICTURE VR P7502-3
4 EDIT P7502-4
5 GND P7502-5
6 HEATER ⊕ P7502-6
7 HEATER ⊖ P7502-7
8 REG 6V P7502-8
9 REG −29V P7502-9
10 BACK UP 5V P7502-10
11 S CLOCK P7502-11
12 S DATA P7502-12
13 REG 5V P7502-13
14 BUZZER P7502-14
J6002 (TO SYSTEM CTL)
1 S CLOCK JP6502-1
2 S DATA JP6502-2
3 FC GND JP6502-3
4 CASS DOWN JP6502-4
5 SP/LP/SLP JP6502-5
6 SP/SLP SW JP6502-6
7 SLOW TR FIX JP6502-7
8 CTL PULSE JP6502-8
9 CAP FC JP6502-9
10 R/S/F JP6502-10
11 GND JP6502-11
JP7001 (TO DEMODULATOR)
1 NON SW 5V JP702-1
2 GND JP702-2
3 UNREG 45V JP702-3
4 REG 12V JP702-4
5 P.B JP702-5
6 JP702-6
JP7002 (TO DEMODULATOR)
1 TU VIDEO IN JP701-1
2 GND (TUNER) JP701-2
3 TU AUDIO IN JP701-3
4 B S 1 JP701-4
5 B S 2 JP701-5
6 B S 3 JP701-6
7 JP701-7
BP3003 (TO 0.32H SKEW)
1 CCD VIDEO OUT P3801-1
2 GND P3801-2
3 VIDEO OUT P3801-3
4 GND P3801-4
5 REG 5V P3801-5
6 REG 12V P3801-6
7 CCD SW P3801-7
8 3.58 NTSC P3801-8
9 E·E P3801-9
BP3002 (TO HEAD AMP)
1 P502-1
2 REC Y P502-2
3 D. REC 12V P502-3
4 REC C P502-4
5 GND P502-5
6 P502-6
BP3001 (TO HEAD AMP)
1 HEAD SW P502-1
2 H. AMP SW P502-2
3 GND P502-3
4 E. REC 5V P502-4
5 RF Y P502-5
6 LP/SLP P502-6
7 RF C P502-7
8 ENV SELECT P502-8
NV-G300EM ONLY
BP3010 (TO 0.32H SKEW)
1 GND P3901-1
2 HD PULSE P3901-2
3 C/R/S/F/R P3901-3
TP2002 REC/PLAY
5Vp-p 25Hz (PAL)
5Vp-p 30Hz (NTSC)
TP2015 REC/PLAY
1.0Vp-p 757Hz (PAL)
1.0Vp-p 1079Hz (NTSC)
TP3002 REC (PAL/NTSC)
2.0Vp-p
TP3002 PLAY (PAL/NTSC)
2.0Vp-p
TP3001 PLAY
0.25Vp-p (PAL)/0.42Vp-p (NTSC)
TP2001 REC/PLAY
5Vp-p 25Hz (PAL)
5Vp-p 30Hz (NTSC)
RF CONVERTER UNIT (ENC87794)
B S 1
REG 12V
RF AUDIO IN
B S 2
RF VIDEO IN
B S 3
NON SW 12V
ARTIFICIAL PAL PACK C.B.A. (VEP03358A: NV-G300EM)
REG 5V
GND
PB CHROMA IN
H.PULSE
CPSV N PRL
PB CHROMA OUT
INPUT/OUTPUT PACK C.B.A. (VEP03487B: NV-G300EM) (VEP03487C: NV-G50PX)
TEST VIDEO OUT
GND
RF VIDEO OUT
REG 5V
LINE AUDIO OUT
CCD VIDEO OUT
DL NTSC
B S 1
REG 12V
B S 3
B S 2
TU VIDEO IN
LP/SLP
NTSC SP
VIDEO IN
GND (TUNER)
V. LOCK VR
PAL SP
GND
TU AUDIO IN
AUDIO IN
NV-G50PX ONLY
IC3002 AN3396
SP
LP
AMP
ENV DET
IC6003 MN74HC08
Q6003 2SD1275 (C/R/S/F/R Ⓛ·ON)
QR6012 DTC124EA (C/R/S/F/R Ⓗ·ON)
QR6002 DTA114EA (EE Ⓛ·ON)
QR6016 DTA114EA (A.NTSC Ⓛ·ON)
QR6015 DTA144EA (A.NTSC Ⓗ·OFF)
QR6013 DTA114YA (MODE SELECTOR)
QR6014 DTA114EA (MODE SELECTOR)
QR6017 DTA114EA (MODE SELECTOR)
QR6018 DTC114YA (MODE SELECTOR)
QR6020 DTA144EA (MODE SELECTOR)
QR6024 DTC144EA (ART V Ⓗ·ON)
QR6001 DTC144EA (POWER OFF Ⓗ·ON)
Q6004 2SD636 (BUZZER DRIVE)
Q3014 2SD636 (INV)
Q3010 2SD636 (REGULATOR)
QR3005 DTC124EA (REC Ⓗ·ON)
QR3004 DTC114EA (A.NTSC Ⓗ·ON)
QR3001 DTC124EA (A.NTSC Ⓓ·ON)
QR3003 2SD1676 (SP/LP SELECTOR)
QR3002 2SD1676 (SP/LP SELECTOR)
Q3011 2SC636 (AMP)
Q3012 2SC2206 (BUFFER)
TORQUE C
HALL ELEMENT POWER SOURSE
RIPPLE CANCEL
P. SIGNAL TORQUE DIRECTION
1ST AMP
DIRECTION LOGIC
SLOW FREE RUN
NTSC PG
PAL PG
NTSC LP SLOW FIX
NTSC SLP SLOW FIX
NTSC SP SLOW FIX
PAL SP SLOW FIX
PAL LP SLOW FIX
AUTO TRACK GAIN
PBQ SP
PBQ LP
NV-G300EM ONLY
H LINE
K LINE
TP1001
TP1002
TP2001
TP2002
TP2008
TP2015
TP2026
TP3001
TP3002
11
12
13
14
15
16
17
18
19
20
21
22
23

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

MAIN (SYSTEM CONTROL Section) ICs DC VOLTAGE CHART (SP mode)

REF. NO.		IC6001																			
MODE		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PAL	REC	5.0	0	0	0	0	0	0	0	5.0	5.0	0	0	4.9	5.0	0	0	4.9	0	0	5.0
	PLAY	5.0	0	0	0	0	0	0	0	5.0	5.0	0	5.0	0.6	5.0	0	0	4.9	0	0	5.0
NTSC	REC	0.8	0	0	0	0	0	0	0	0	0	0	0	4.9	5.0	4.1	5.0	0	0	0	0
	PLAY	0.8	0	0	0	0	0	0	0	5.0	0	0	5.0	0.6	5.0	0	5.0	0	0	0	0
REF. NO.		IC6001																			
MODE		21	22																		
PAL	REC	0	5.0																		
	PLAY	0	5.0																		
NTSC	REC	4.9	5.0																		
	PLAY	4.9	5.0																		
REF. NO.		IC6003																			
MODE		1	2	3	4	5	6	7	8	9	10	11	12	13	14						
PAL	REC	0	5.0	0	5.0	5.0	5.0	0	0	5.0	0.1	0	0.1	0	5.0						
	PLAY	0	5.0	0	5.0	5.0	5.0	0	0	5.0	0	0	0	0	5.0						
NTSC	REC	4.9	5.0	4.9	5.0	0	0	0	0	0	0.1	0	0.1	4.9	5.0						
	PLAY	4.9	5.0	4.9	5.0	0	0	0	0	0	0	0	0	4.9	5.0						

MAIN (SYSTEM CONTROL Section) TRANSISTORs DC VOLTAGE CHART (SP mode)

REF. NO.		Q6003			Q6004			Q6008											
MODE		E	C	B	E	C	B	E	C	B									
PAL	REC	10.0	14.2	11.2	0	0	0.8	5.0	0.1	5.0									
	PLAY	10.0	14.3	11.2	0	0	0.8	5.0	0.1	5.0									
NTSC	REC	0	0	0.8	0	0	0.8	5.0	4.9	4.4									
	PLAY	10.0	14.3	11.2	0	0	0.8	5.0	4.9	4.3									
REF. NO.		QR6001			QR6002			QR6003			QR6004			QR6005			QR6006		
MODE		E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
PAL	REC	0	7.3	0	5.0	4.9	0	0	5.0	0	0	0	2.3	5.0	5.0	0	0	4.9	0
	PLAY	0	7.3	0	5.0	0.6	5.0	0	5.0	0	0	0	2.3	5.0	5.0	0	0	4.9	0
NTSC	REC	0	7.3	0	5.0	4.9	0	0	0	4.5	0	5.0	0	5.0	0	5.0	0	0	4.5
	PLAY	0	7.1	0	5.0	0.6	5.0	0	0	4.5	0	0	2.3	5.0	5.0	0	0	0	4.5
REF. NO.		QR6011			QR6012			QR6013			QR6014			QR6015			QR6016		
MODE		E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
PAL	REC	0	0	11.9	0	0.1	5.0	0.1	−0.3	0	0	−0.3	0	5.0	5.0	0	5.0	0	5.0
	PLAY	0	9.9	0	0	0.1	5.0	0	−0.3	0	0	−0.3	0	5.0	5.0	0	5.0	0	5.0
NTSC	REC	0	0	11.9	0	0.1	5.0	0.1	−0.2	0	0	−0.2	0	5.0	3.0	4.9	5.1	5.0	0
	PLAY	0	9.9	0.4	0	0.1	5.0	0	−0.3	0	0	−0.3	0	5.0	3.0	4.9	5.0	5.0	0
REF. NO.		QR6017			QR6018			QR6020			QR6022			QR6023			QR6024		
MODE		E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
PAL	REC	5.0	0.1	5.0	0	5.0	0	0.1	0.1	0.1	0	5.1	0	5.2	3.6	5.1	0	0	0
	PLAY	5.0	0	5.0	0	5.0	0	0	0	0	0	5.1	0	5.1	3.6	5.1	0	0	0
NTSC	REC	5.0	0.1	5.0	0	5.0	0	0	0	0	0	5.1	0	5.2	3.3	5.1	0	0	0
	PLAY	5.0	0	5.0	0	5.0	0	0	0	0	0	5.1	0	5.1	3.3	5.1	0	0	0

MAIN (SERVO Section) IC DC VOLTAGE CHART (SP mode)

REF. NO.		IC2001																			
MODE	PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PAL	REC	3.3	0.2	3.3	0	1.9	1.9	1.9	1.9	1.9	1.9	0	0	5.0	3.3	2.8	2.5	4.2	3.9	0.7	0.2
	PLAY	3.3	0.2	3.3	0	1.9	1.9	1.8	1.9	1.9	1.8	0	0	5.0	3.3	2.8	2.5	4.2	3.9	0.7	0.2
NTSC	REC	3.3	0.2	3.3	0	1.8	1.8	1.8	1.9	1.9	1.8	0	0	5.0	3.3	2.8	2.5	4.2	3.9	0.7	0.2
	PLAY	3.3	0.2	3.3	0	1.9	1.9	1.8	1.8	1.8	1.8	0	0	5.0	3.2	2.8	2.5	4.2	3.9	0.7	0.2
REF. NO.		IC2001																			
MODE	PIN	21	22	23	24																
PAL	REC	0	4.2	3.3	9.9																
	PLAY	0	4.2	3.3	10.0																
NTSC	REC	0	4.2	3.3	10.0																
	PLAY	0	4.2	3.3	9.9																

MAIN (LUMINANCE & CHROMINANCE Section) ICs DC VOLTAGE CHART (SP mode)

REF. NO.		IC302						
MODE	PIN	1	2	3	4	5	6	7
REC	PAL	0.2	0.1	0.2	0	0	0	0.2
PLAY		3.3	0	4.3	0	3.5	2.8	4.8
REC	SECAM	0.2	0.1	0.2	0	0	0	0.2
PLAY		3.3	0	4.3	0	3.5	2.8	4.8
REC	NTSC 4.43MHz	0.3	0.1	0.3	0	0	0	0.3
PLAY		3.3	0	4.3	0	3.7	3.9	4.8
PLAY	NTSC PB	3.3	0	4.3	0	3.8	3.9	4.8

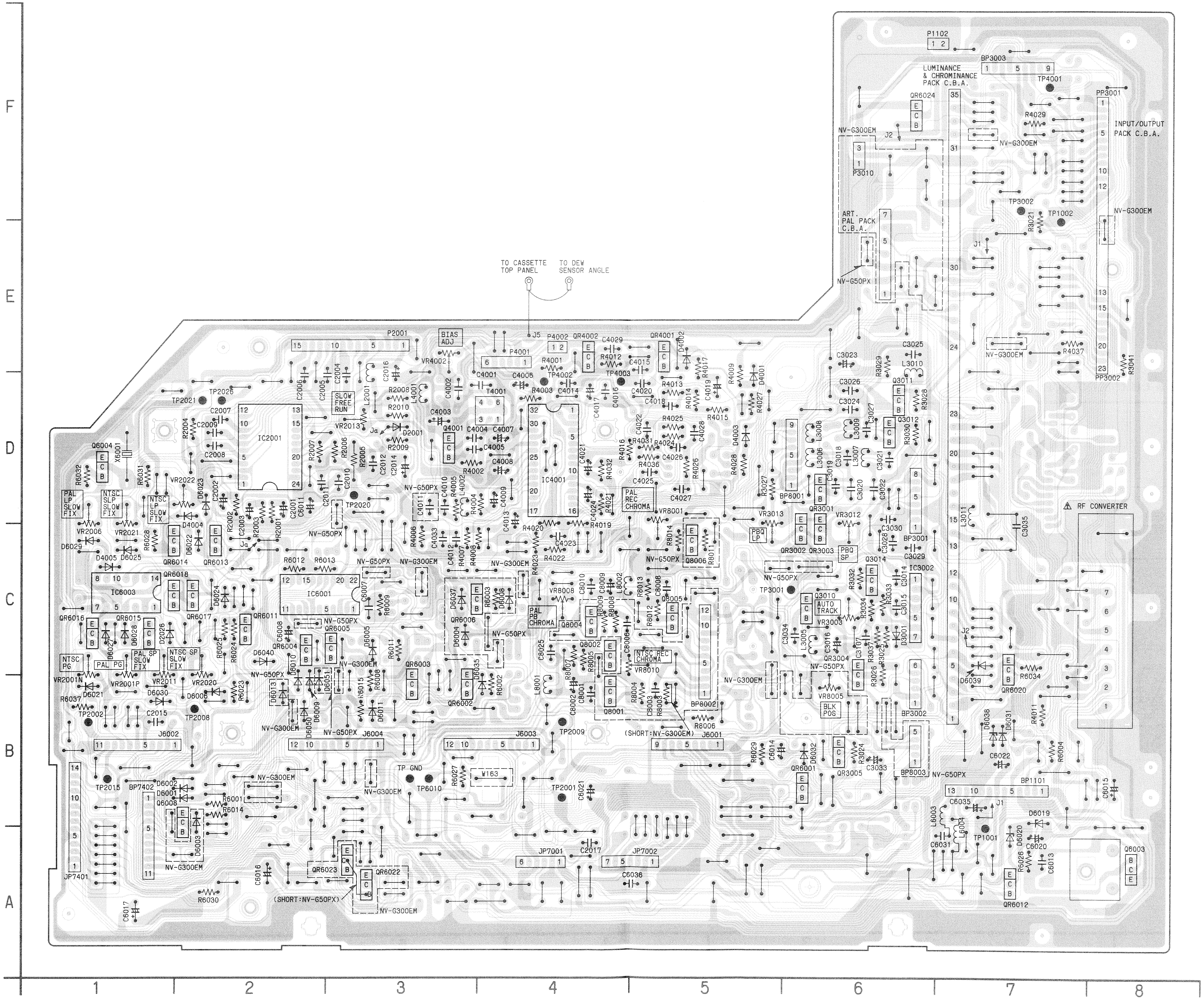
MAIN (LUMINANCE & CHROMINANCE Section) TRANSISTORs DC VOLTAGE CHART (SP mode)

REF. NO.		Q3010			Q3011			Q3012											
MODE	PIN	E	C	B	E	C	B	E	C	B									
REC	PAL	0.2	5.0	0	0	0.2	0.2	0	0.2	0.2									
PLAY		4.8	5.0	5.6	2.7	4.8	3.2	1.6	3.2	2.3									
REC	SECAM	0.2	5.0	0	0	0.2	0.2	0	0.2	0.2									
PLAY		4.8	5.0	5.6	2.7	4.8	3.2	1.6	3.2	2.3									
REC	NTSC 4.43MHz	0.3	5.0	0	0	0.3	0.3	0	0.3	0.3									
PLAY		4.8	5.0	5.6	2.7	4.8	3.2	1.6	3.2	2.3									
PLAY	NTSC PB	4.8	4.9	5.6	2.7	4.8	3.2	1.6	3.2	2.3									
REF. NO.		Q8001			Q8002			Q8004			Q8005			Q8006					
MODE	PIN	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B			
REC	PAL	2.0	5.0	0.1	2.0	5.0	2.6	1.7	11.9	0.1	1.7	11.9	2.4	1.7	11.9	0			
PLAY		2.0	5.0	0.1	2.0	5.0	2.6	0	0	0.1	0	0	0	0	0	0			
REC	SECAM	3.3	5.0	0.1	3.3	5.0	2.8	3.3	11.9	0.1	3.3	11.9	2.4	3.3	11.9	3.9			
PLAY		3.2	5.0	0.1	3.2	5.0	2.7	0.4	0.4	0.1	0.3	0.4	0.1	0.4	0.4	1.0			
REC	NTSC 4.43MHz	2.0	5.0	0.1	2.0	5.0	2.6	1.7	11.9	0.1	1.7	11.9	2.3	1.7	11.9	0			
PLAY		2.0	5.0	0.1	2.0	5.0	2.6	0	0	0.1	0	0	0	0	0	0			
PLAY	NTSC PB	2.0	5.0	0.1	2.0	5.0	2.6	0	0	0.1	0	0	0	0	0	0			
REF. NO.		QR3001			QR3002			QR3003			QR3004			QR3005					
MODE	PIN	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B			
REC	PAL	0.1	0.1	0	0	0.1	0.1	0	0.1	0.1	3.0	3.3	0	0	0	5.6			
PLAY		2.1	0	0	0	2.1	0	0	0	2.1	3.4	3.7	0	0	5.6	0			
REC	SECAM	0.1	0.1	0	0	0.1	0.1	0	0.1	0.1	3.0	3.3	0	0	0	5.0			
PLAY		2.1	0	0	0	2.1	0	0	0	2.1	3.4	3.7	0	0	5.6	0			
REC	NTSC 4.43MHz	0.8	2.5	4.9	0	0.8	0.1	0	0	0.8	3.3	3.3	4.9	0	0	5.0			
PLAY		2.7	3.4	5.0	0	2.7	0	0	0	2.7	3.6	3.7	4.9	0	5.6	0			
PLAY	NTSC PB	2.7	3.4	4.9	0	2.7	0	0	0	2.7	3.6	3.7	4.9	0	5.6	0			

MAIN C.B.A.	
Transistor	
Q3010	C-6
Q3011	D-6
Q3012	D-6
Q3014	C-6
Q4001	D-3
Q6003	A-8
Q6004	D-1
Q6008	A-2
Q8001	B-4
Q8002	C-4
Q8004	C-4
Q8005	C-5
Q8006	C-5
Transistor & Resistor	
QR3001	D-6
QR3002	C-6
QR3003	C-6
QR3004	B-6
QR3005	B-6
QR4001	E-5
QR4002	E-4
QR6001	B-6
QR6002	B-3
QR6003	C-3
QR6004	C-2
QR6005	C-3
QR6006	C-4
QR6011	C-2
QR6012	A-7
QR6013	C-2
QR6014	C-1
QR6015	C-1
QR6016	C-1
QR6017	C-2
QR6018	C-1
QR6020	B-7
QR6022	A-3
QR6023	A-3
QR6024	F-6
Integrated Circuit	
IC2001	D-2
IC3002	C-6
IC4001	D-4
IC6001	C-2
IC6003	C-1
Test Point	
TP1001	A-7
TP1002	F-7
TP2001	B-4
TP2002	B-1
TP2008	B-2
TP2009	B-4
TP2015	B-1
TP2020	D-3
TP2021	D-2
TP2026	D-2
TP3001	C-6
TP3002	F-7
TP4001	F-7
TP4002	D-4
TP4003	D-4
TP6010	B-3
TP8013	C-5
TP GND	B-3
Adjustment	
VR2001 N	B-1
VR2001 P	B-1
VR2006	C-1
VR2011	B-1
VR2013	D-3
VR2020	B-2
VR2021	C-1
VR2022	D-2
VR3003	C-6
VR3012	D-6
VR3013	D-5
VR4002	E-3
VR8001	D-5
VR8003	C-5
VR8004	C-5
VR8005	B-6
VR8008	C-4
VR8010	C-5
Connector	
BP1101	B-7
BP3001	C-6
BP3002	B-6
BP3003	F-7
BP7401	A-1
BP7402	B-1
BP8001	D-6
BP8002	B-5
BP8003	B-6
J6001	B-5
J6002	B-1
J6003	B-4
J6004	B-3
P1102	F-6
P2001	E-3
P3010	F-6
P4001	E-4
P4002	E-4
PJ7001	A-4
PJ7002	A-5
PP3001	F-8
PP3002	D-8

ADDRESS INFORMATION

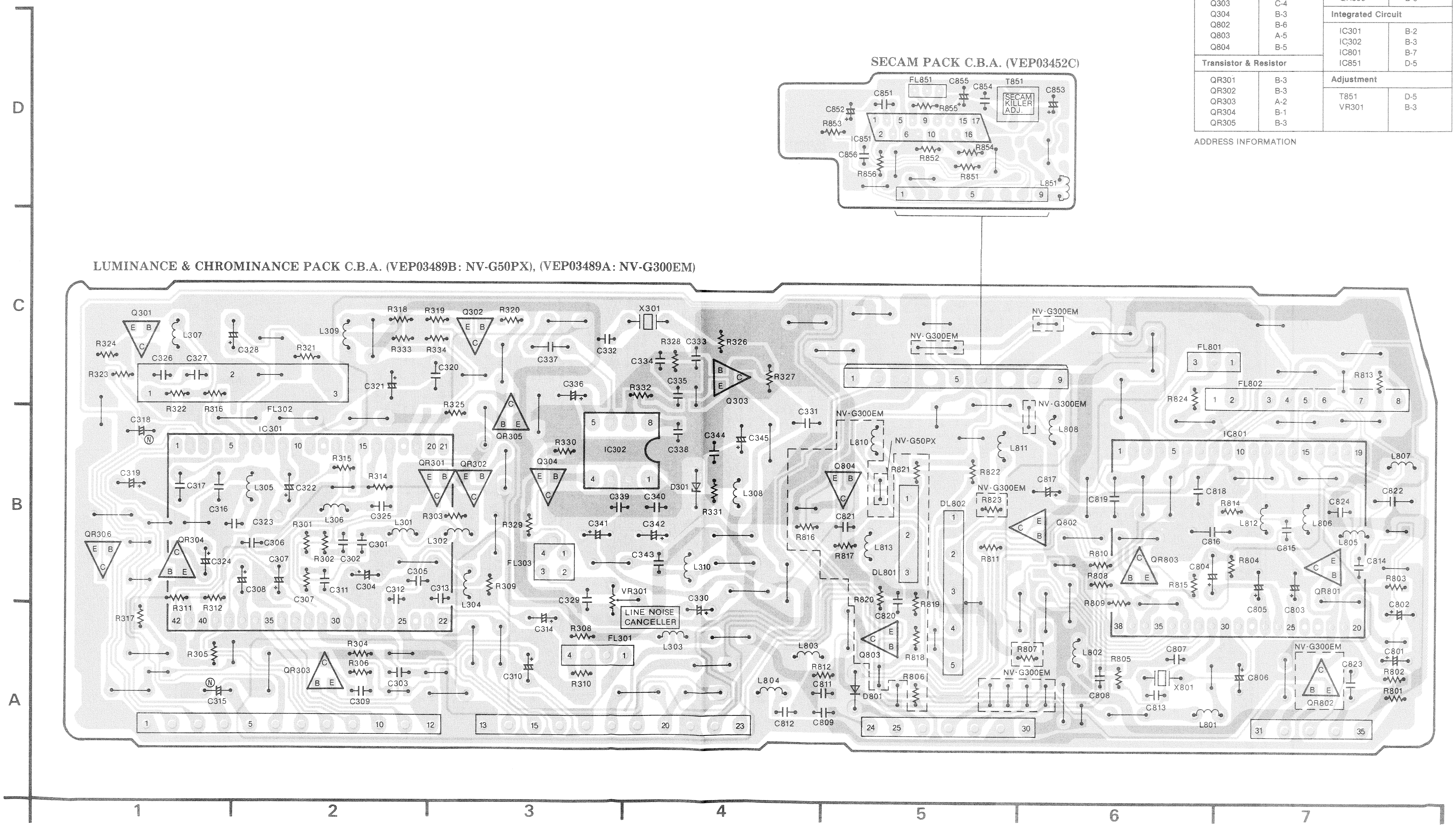
3-11. MAIN C.B.A. (VEP03486C: NV-G50PX) (VEP03486B: NV-G300EM)


F
E
D
C
B
A
1
2
3
4
5
6
7
8
TO CASSETTE TOP PANEL
TO DEW SENSOR ANGLE
LUMINANCE & CHROMINANCE PACK C.B.A.
INPUT/OUTPUT PACK C.B.A.
ART. PAL PACK C.B.A.
RF CONVERTER
IC2001
IC4001
IC6001
IC6003
IC3002
BIAS ADJ
SLOW FREE RUN
PAL LP SLOW FIX
NTSC SLP SLOW FIX
NTSC LP SLOW FIX
PAL REC CHROMA
PAL PB CHROMA
NTSC REC CHROMA
PBQ LP
PBQ SP
AUTO TRACK
BLK POS
PAL SP SLOW FIX
NTSC SP SLOW FIX
NTSC PG
PAL PG
P1102
BP3003
PP3001
PP3002
P2001
P4001
P4002
BP8001
BP3001
BP3002
BP8002
BP8003
BP1101
BP7402
JP7401
JP7001
JP7002
J6001
J6002
J6003
J6004
TP GND
TP4001
TP3002
TP1002
TP2020
TP2021
TP2026
TP4002
TP4003
TP3001
TP2002
TP2008
TP2009
TP2015
TP6010
TP2001
TP1001
NV-G300EM
NV-G50PX
(SHORT:NV-G300EM)
(SHORT:NV-G50PX)
Q6003
QR6012
QR6023
QR6022

3-12. LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03489B: NV-G50PX), (VEP03489A: NV-G300EM)

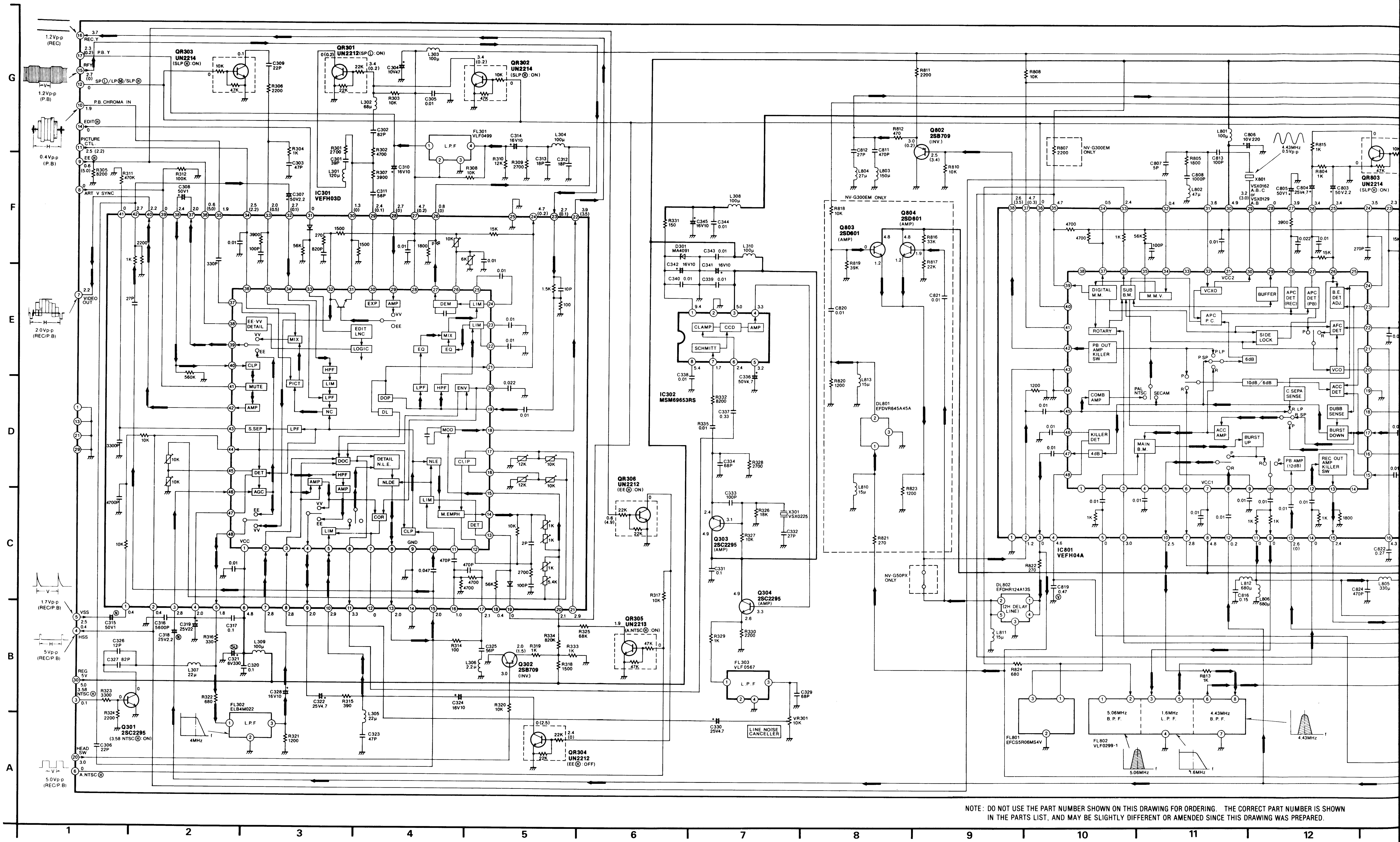
LUMINANCE & CHROMINANCE PACK C.B.A.	
Transistor	
Q301	C-1
Q302	C-3
Q303	C-4
Q304	B-3
Q802	B-6
Q803	A-5
Q804	B-5
Transistor & Resistor	
QR301	B-3
QR302	B-3
QR303	A-2
QR304	B-1
QR305	B-3
QR306	B-1
QR801	B-7
QR802	A-7
QR803	B-6
Integrated Circuit	
IC301	B-2
IC302	B-3
IC801	B-7
IC851	D-5
Adjustment	
T851	D-5
VR301	B-3

ADDRESS INFORMATION

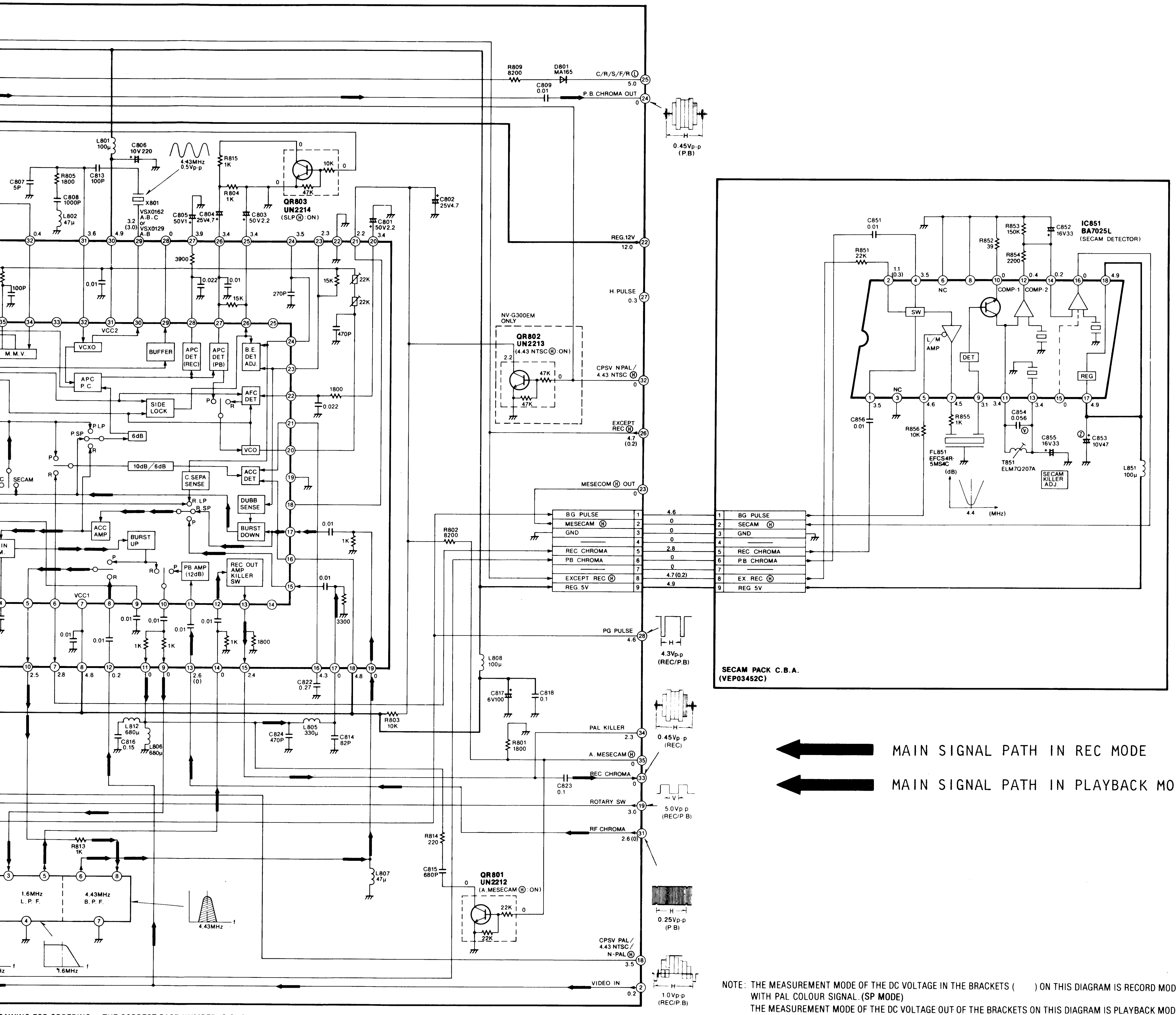

SECAM PACK C.B.A. (VEP03452C)
LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03489B: NV-G50PX), (VEP03489A: NV-G300EM)
D
C
B
A
1
2
3
4
5
6
7
SECAM KILLER ADJ.
T851
FL851
C851
C852
C853
C854
C855
R851
R852
R853
R854
R855
R856
C856
IC851
L851
Q301
Q302
Q303
Q304
Q802
Q803
Q804
QR301
QR302
QR303
QR304
QR305
QR306
QR801
QR802
QR803
IC301
IC302
IC801
X301
X801
FL301
FL302
FL303
FL801
FL802
DL801
DL802
D301
D801
VR301
LINE NOISE CANCELLER
NV-G300EM
NV-G50PX

Back Page:
MAIN Section

3-13. LUMINANCE & CHROMINANCE PACK SCHEMATIC DIAGRAM


1.2Vp-p (REC)
1.2Vp-p (P.B)
0.4Vp-p (P.B)
2.0Vp-p (REC/P.B)
1.7Vp-p (REC/P.B)
5Vp-p (REC/P.B)
5.0Vp-p (REC/P.B)
REC.Y
P.B. Y
RFY
SP Ⓛ/LP Ⓜ/SLP Ⓗ
P.B. CHROMA IN
EDIT Ⓗ
PICTURE CTL
EE Ⓗ
ART V SYNC
VIDEO OUT
VSS
HSS
REG 5V
NTSC Ⓗ
HEAD SW
A.NTSC Ⓗ
QR303 UN2214 (SLP Ⓗ:ON)
QR301 UN2212 (SP Ⓛ:ON)
QR302 UN2214 (SLP Ⓗ:ON)
IC301 VEFH03D
FL301 VLF0499
L.P.F
EE·VV DETAIL
MIX
CLP
MUTE
AMP
S.SEP
LPF
DET
AGC
PICT
HPF
LIM
NC
EDIT LNC
LOGIC
EXP
DEM
EQ
DOP
DL
ENV
MOD
DOC
DETAIL N.L.E.
NLE
NLDE
COR
CLIP
M.EMPH
QR306 UN2212 (EE Ⓗ:ON)
QR305 UN2213 (A.NTSC Ⓗ:ON)
QR304 UN2212 (EE Ⓗ:OFF)
Q302 2SB709 (INV.)
Q301 2SC2295 (3.58 NTSC Ⓗ:ON)
FL302 ELB4M022
4MHz
IC302 MSM69653RS
CLAMP
CCD
SCHMITT
D301 MA4091
Q303 2SC2295 (AMP)
Q304 2SC2295 (AMP)
X301 VSX0225
FL303 VLF0567
LINE NOISE CANCELLER
VR301 10K
NV-G300EM ONLY
Q802 2SB709 (INV.)
Q803 2SD601 (AMP)
Q804 2SD601 (AMP)
DL801 EFDVR645A45A
NV-G50PX ONLY
DL802 EFDHR124A13S (2H DELAY LINE)
IC801 VEFH04A
DIGITAL M.M.
SUB B.M.
M.M.V
VCXO
BUFFER
APC DET (REC)
APC DET (PB)
B.E DET ADJ
APC P.C
SIDE LOCK
AFC DET
ROTARY
PB OUT AMP KILLER SW
VCO
10dB/6dB
6dB
C.SEPA SENSE
ACC DET
COMB AMP
PAL NTSC
SECAM
DUBB SENSE
BURST DOWN
KILLER DET
MAIN B.M.
ACC AMP
BURST UP
4dB
PB AMP (12dB)
REC OUT AMP KILLER SW
VCC1
VCC2
4.43MHz 0.5Vp-p
X801 VSX0162 A.B.C or VSX0129 A.B
QR803 UN2214 (SLP Ⓗ:ON)
FL801 EFCS5R06MS4V
FL802 VLF0299-1
5.06MHz B.P.F.
1.6MHz L.P.F.
4.43MHz B.P.F.
5.06MHz
1.6MHz
4.43MHz
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.


R809
8200
D801
MA165
C/R/S/F/R Ⓛ
C809
0.01
P.B. CHROMA OUT
0.45Vp-p
(P.B)
L801
100μ
C806
10V220
4.43MHz
0.5Vp-p
R815
1K
QR803
UN2214
(SLP Ⓗ ON)
C802
25V4.7
C807
5P
R805
1800
C813
100P
C808
1000P
L802
47μ
X801
VSX0162
A.B.C
or
VSX0129
A.B
C805
50V1
C804
25V4.7
C803
50V2.2
C801
50V2.2
R804
1K
REG.12V
H.PULSE
3900
0.022
0.01
15K
270P
22K
470P
VCXO
VCC2
BUFFER
APC DET (REC)
APC DET (PB)
B.E. DET ADJ.
M.M.V
APC P.C
SIDE LOCK
AFC DET
VCO
6dB
10dB/6dB
C.SEPA SENSE
ACC DET
DUBB SENSE
BURST DOWN
ACC AMP
BURST UP
PB AMP (12dB)
REC OUT AMP KILLER SW
VCC1
SECAM
1800
0.022
NV-G300EM ONLY
QR802
UN2213
(4.43 NTSC Ⓗ ON)
CPSV N.PAL/
4.43 NTSC Ⓗ
EXCEPT REC Ⓗ
MESECOM Ⓗ OUT
R802
8200
BG PULSE
MESECAM Ⓗ
GND
REC CHROMA
PB CHROMA
EXCEPT REC Ⓗ
REG. 5V
SECAM
EX. REC Ⓗ
PG PULSE
4.3Vp-p
(REC/P.B)
L808
100μ
C817
6V100
C818
0.1
R801
1800
C822
0.27
R803
10K
L812
680μ
C816
0.15
L806
680μ
C824
470P
L805
330μ
C814
82P
PAL KILLER
0.45Vp-p
(REC)
A. MESECAM Ⓗ
REC CHROMA
C823
0.1
ROTARY SW
5.0Vp-p
(REC/P.B)
RF CHROMA
R814
220
C815
680P
QR801
UN2212
(A. MESECAM Ⓗ ON)
22K
0.25Vp-p
(P.B)
CPSV PAL/
4.43 NTSC/
N-PAL Ⓗ
VIDEO IN
1.0Vp-p
(REC/P.B)
R813
1K
L807
47μ
1.6MHz
L.P.F.
4.43MHz
B.P.F.
4.43MHz
1.6MHz
C851
0.01
R851
22K
R853
150K
C852
16V33
R852
39
R854
2200
IC851
BA7025L
(SECAM DETECTOR)
SW
L/M AMP
DET
COMP-1
COMP-2
REG
NC
C856
0.01
R856
10K
R855
1K
C854
0.056
C855
16V33
C853
10V47
FL851
EFCS4R-5MS4C
(dB)
4.4 (MHz)
T851
ELM7Q207A
SECAM KILLER ADJ.
L851
100μ
SECAM PACK C.B.A.
(VEP03452C)

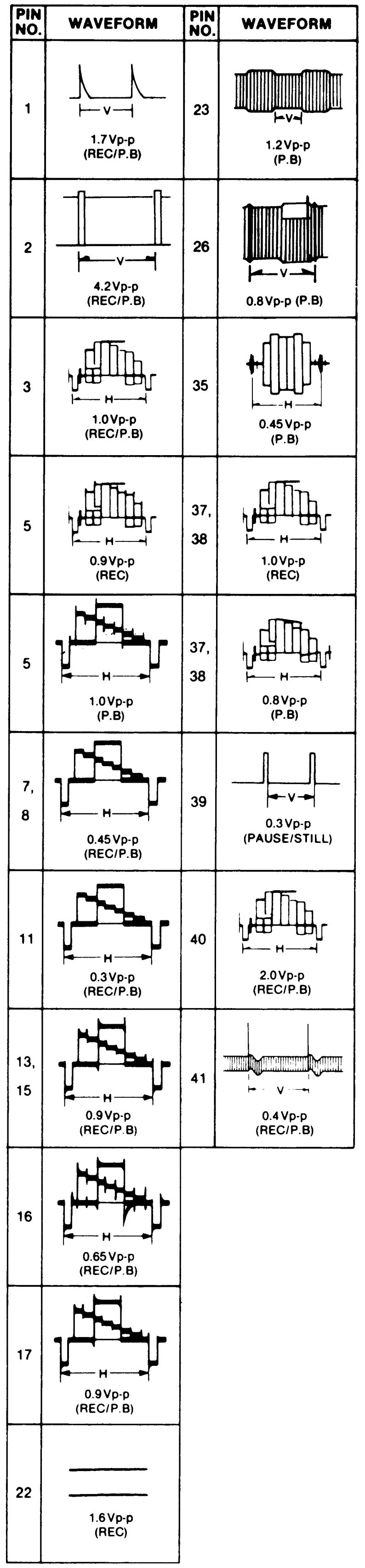
MAIN SIGNAL PATH IN REC MODE

MAIN SIGNAL PATH IN PLAYBACK MODE

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP MODE)

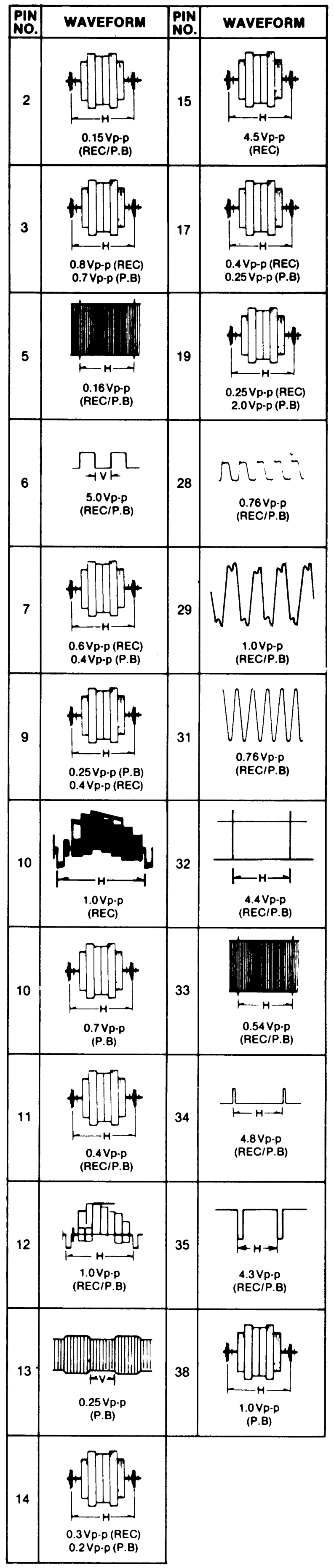
RAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN
RENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

IC301 (VEFH03D)



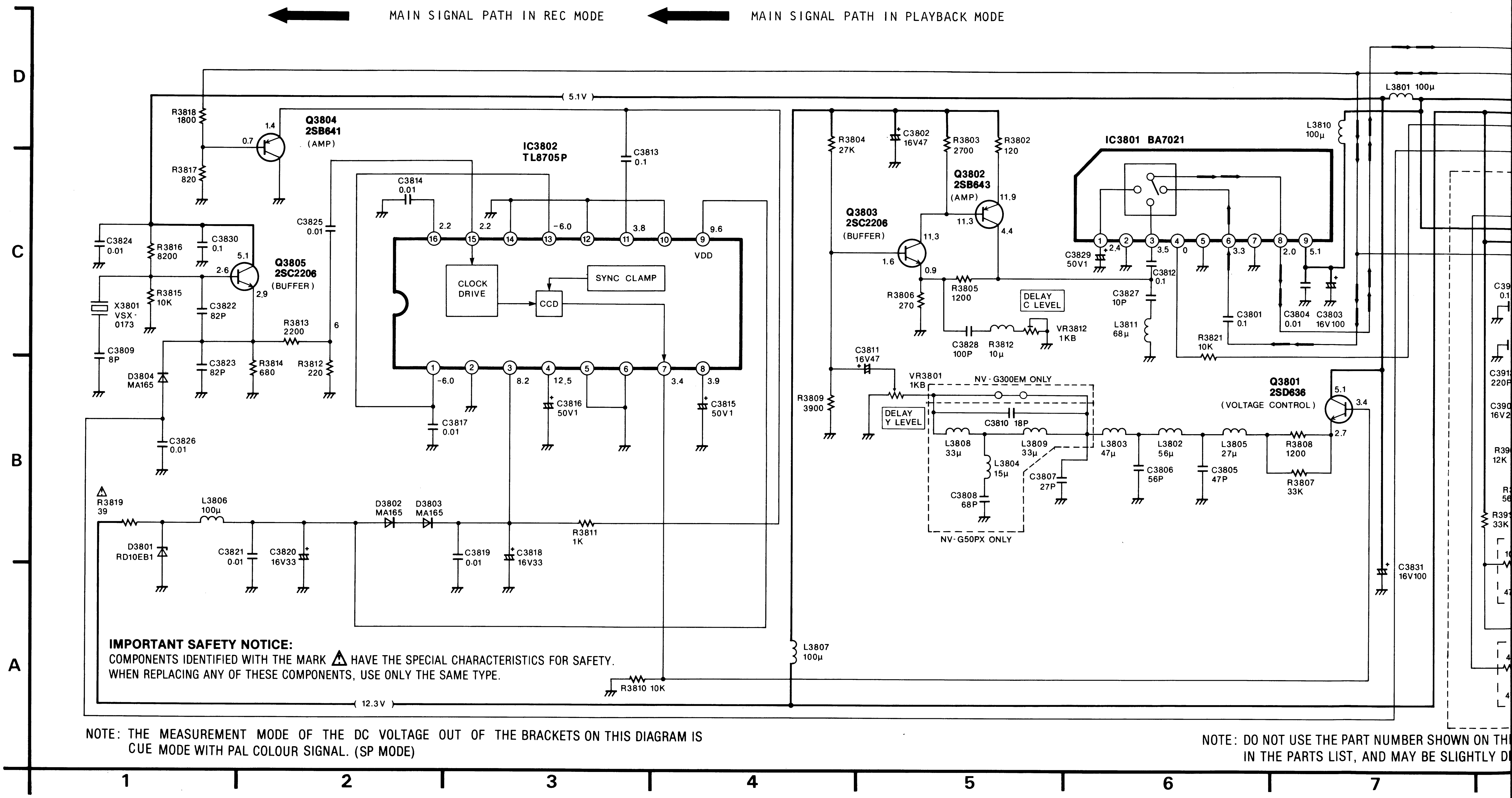
PIN NO.	WAVEFORM	PIN NO.	WAVEFORM
1	1.7Vp-p (REC/P.B)	23	1.2Vp-p (P.B)
2	4.2Vp-p (REC/P.B)	26	0.8Vp-p (P.B)
3	1.0Vp-p (REC/P.B)	35	0.45Vp-p (P.B)
5	0.9Vp-p (REC)	37, 38	1.0Vp-p (REC)
5	1.0Vp-p (P.B)	37, 38	0.8Vp-p (P.B)
7, 8	0.45Vp-p (REC/P.B)	39	0.3Vp-p (PAUSE/STILL)
11	0.3Vp-p (REC/P.B)	40	2.0Vp-p (REC/P.B)
13, 15	0.9Vp-p (REC/P.B)	41	0.4Vp-p (REC/P.B)
16	0.65Vp-p (REC/P.B)		
17	0.9Vp-p (REC/P.B)		
22	1.6Vp-p (REC)		

IC801 (VEFH04A)



PIN NO.	WAVEFORM	PIN NO.	WAVEFORM
2	0.15Vp-p (REC/P.B)	15	4.5Vp-p (REC)
3	0.8Vp-p (REC) 0.7Vp-p (P.B)	17	0.4Vp-p (REC) 0.25Vp-p (P.B)
5	0.16Vp-p (REC/P.B)	19	0.25Vp-p (REC) 2.0Vp-p (P.B)
6	5.0Vp-p (REC/P.B)	28	0.76Vp-p (REC/P.B)
7	0.6Vp-p (REC) 0.4Vp-p (P.B)	29	1.0Vp-p (REC/P.B)
9	0.25Vp-p (P.B) 0.4Vp-p (REC)	31	0.76Vp-p (REC/P.B)
10	1.0Vp-p (REC)	32	4.4Vp-p (REC/P.B)
10	0.7Vp-p (P.B)	33	0.54Vp-p (REC/P.B)
11	0.4Vp-p (REC/P.B)	34	4.8Vp-p (REC/P.B)
12	1.0Vp-p (REC/P.B)	35	4.3Vp-p (REC/P.B)
13	0.25Vp-p (P.B)	38	1.0Vp-p (P.B)
14	0.3Vp-p (REC) 0.2Vp-p (P.B)		

3-14. 0.32H SKEW SCHEMATIC DIAGRAM


MAIN SIGNAL PATH IN REC MODE
MAIN SIGNAL PATH IN PLAYBACK MODE
D
C
B
A
1
2
3
4
5
6
7
5.1V
12.3V
R3818 1800
R3817 820
Q3804 2SB641 (AMP)
1.4
0.7
IC3802 TL8705P
C3813 0.1
C3814 0.01
C3825 0.01
C3824 0.01
R3816 8200
C3830 0.1
Q3805 2SC2206 (BUFFER)
5.1
2.6
2.9
X3801 VSX-0173
R3815 10K
C3822 82P
C3809 8P
R3813 2200
6
D3804 MA165
C3823 82P
R3814 680
R3812 220
C3826 0.01
CLOCK DRIVE
SYNC CLAMP
CCD
VDD
2.2
2.2
-6.0
3.8
9.6
-6.0
8.2
12.5
3.4
3.9
C3817 0.01
C3816 50V1
C3815 50V1
R3819 39
L3806 100μ
D3801 RD10EB1
C3821 0.01
C3820 16V33
D3802 MA165
D3803 MA165
C3819 0.01
C3818 16V33
R3811 1K
R3810 10K
R3804 27K
C3802 16V47
R3803 2700
R3802 120
Q3802 2SB643 (AMP)
11.9
11.3
4.4
Q3803 2SC2206 (BUFFER)
11.3
1.6
0.9
R3806 270
R3805 1200
DELAY C LEVEL
C3828 100P
R3812 10μ
VR3812 1KB
C3811 16V47
VR3801 1KB
DELAY Y LEVEL
R3809 3900
NV-G300EM ONLY
C3810 18P
L3808 33μ
L3809 33μ
L3804 15μ
C3807 27P
C3808 68P
NV-G50PX ONLY
L3807 100μ
IC3801 BA7021
C3829 50V1
2.4
3.5
0
3.3
2.0
5.1
C3812 0.1
C3827 10P
L3811 68μ
C3801 0.1
R3821 10K
C3804 0.01
C3803 16V100
L3801 100μ
L3810 100μ
Q3801 2SD636 (VOLTAGE CONTROL)
5.1
3.4
2.7
L3803 47μ
L3802 56μ
L3805 27μ
R3808 1200
R3807 33K
C3806 56P
C3805 47P
C3831 16V100

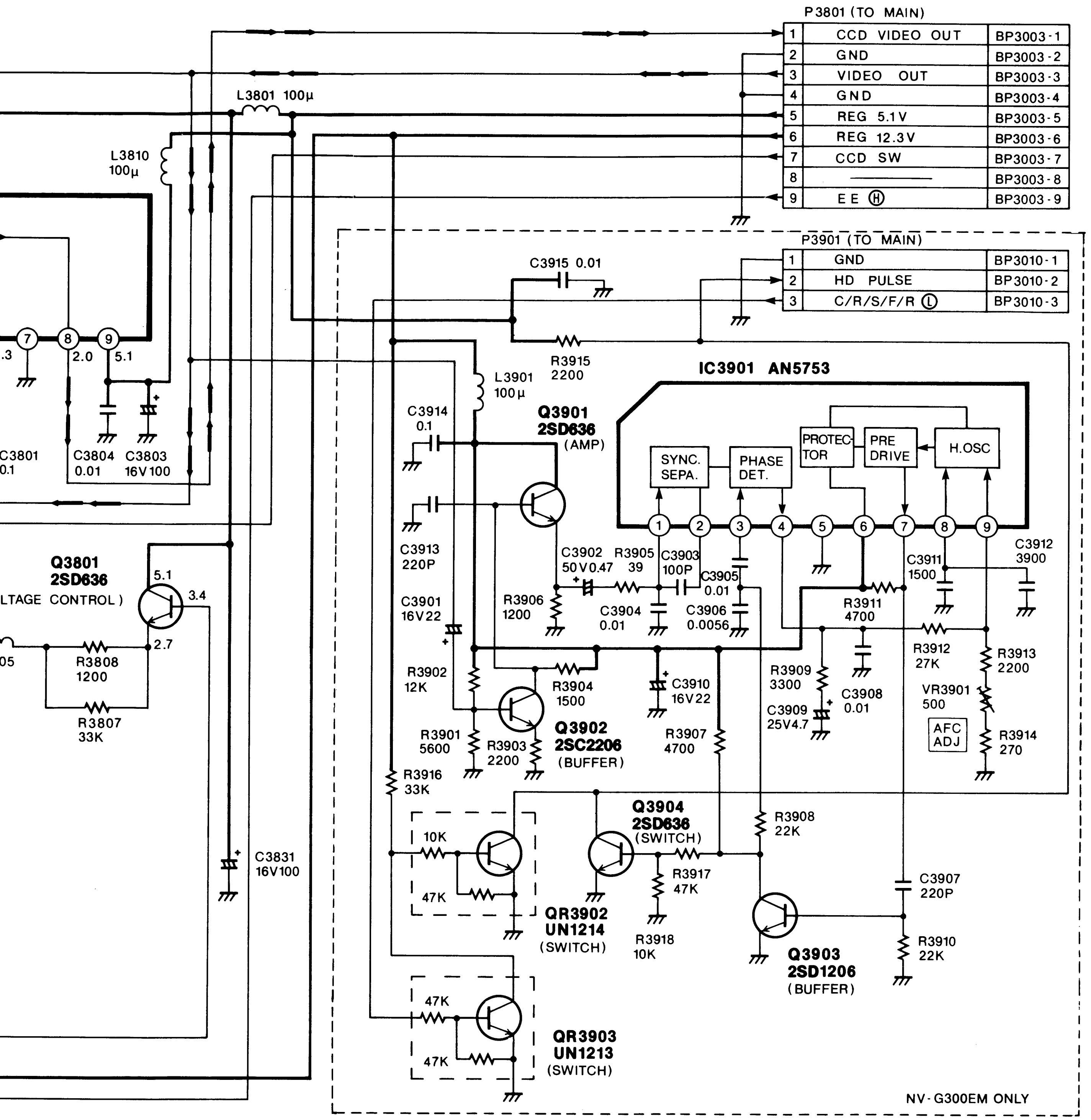
IMPORTANT SAFETY NOTICE:

COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS CUE MODE WITH PAL COLOUR SIGNAL. (SP MODE)

NOTE: DO NOT USE THE PART NUMBER SHOWN ON TH
IN THE PARTS LIST, AND MAY BE SLIGHTLY D

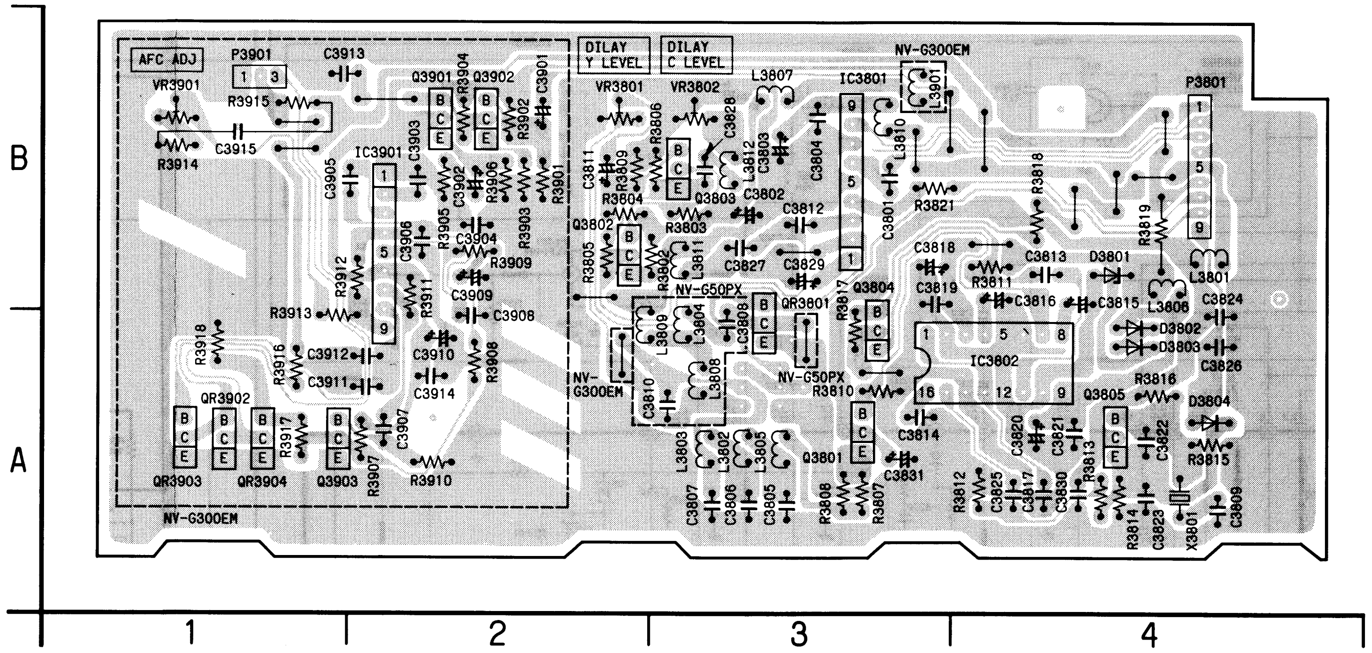
Back Page:
LUMINANCE & CHROMINANCE
PACK Section


P3801 (TO MAIN)
1 CCD VIDEO OUT BP3003·1
2 GND BP3003·2
3 VIDEO OUT BP3003·3
4 GND BP3003·4
5 REG 5.1V BP3003·5
6 REG 12.3V BP3003·6
7 CCD SW BP3003·7
8 BP3003·8
9 EE Ⓗ BP3003·9
P3901 (TO MAIN)
1 GND BP3010·1
2 HD PULSE BP3010·2
3 C/R/S/F/R Ⓛ BP3010·3
L3801 100µ
L3810 100µ
C3915 0.01
R3915 2200
L3901 100µ
IC3901 AN5753
SYNC. SEPA.
PHASE DET.
PROTEC-TOR
PRE DRIVE
H.OSC
C3914 0.1
Q3901 2SD636 (AMP)
C3913 220P
C3901 16V22
C3902 50V0.47
R3905 39
C3903 100P
C3905 0.01
C3904 0.01
C3906 0.0056
C3911 1500
C3912 3900
R3911 4700
R3906 1200
R3902 12K
R3904 1500
C3910 16V22
R3909 3300
C3908 0.01
C3909 25V4.7
R3912 27K
R3913 2200
VR3901 500
AFC ADJ
R3914 270
R3901 5600
R3903 2200
Q3902 2SC2206 (BUFFER)
R3907 4700
R3916 33K
Q3904 2SD636 (SWITCH)
R3908 22K
10K
47K
QR3902 UN1214 (SWITCH)
R3917 47K
R3918 10K
Q3903 2SD1206 (BUFFER)
C3907 220P
R3910 22K
47K
47K
QR3903 UN1213 (SWITCH)
NV·G300EM ONLY
C3831 16V100
Q3801 2SD636
LTAGE CONTROL)
5.1
3.4
2.7
05
R3808 1200
R3807 33K
C3801 0.1
C3804 0.01
C3803 16V100
.3
2.0
5.1
7
8
9

DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

7 8 9

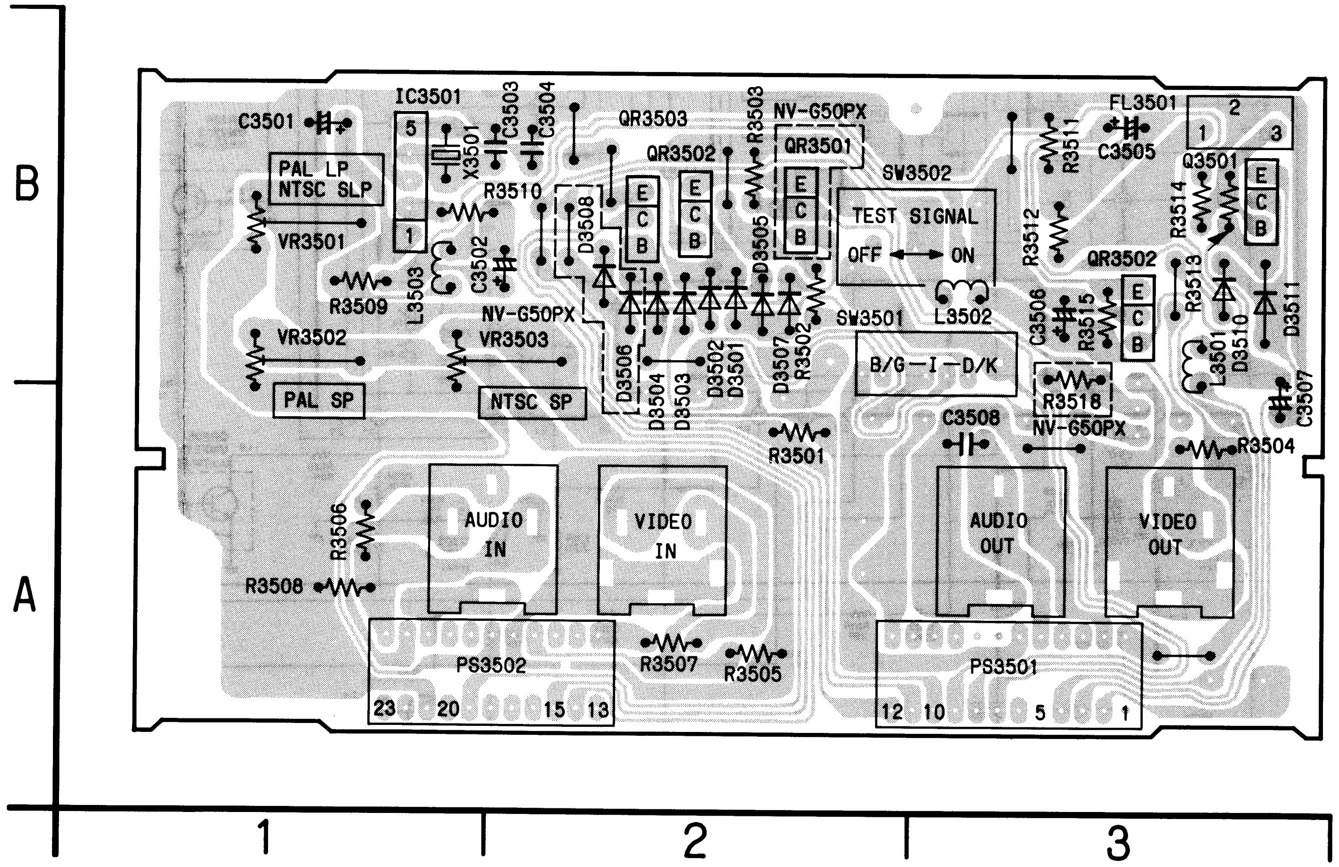
3-15. 0.32H SKEW C.B.A. (VEP03490C: NV-G50PX) (VEP03490B:


B
A
1
2
3
4
AFC ADJ
VR3901
P3901
C3913
DILAY Y LEVEL
DILAY C LEVEL
VR3801
VR3802
NV-G300EM
IC3801
IC3802
IC3901
P3801
L3801
L3807
L3901
Q3801
Q3802
Q3803
Q3805
Q3901
Q3902
QR3801
QR3804
QR3902
QR3903
QR3904
NV-G50PX
NV-G300EM
D3801
D3802
D3803
D3804
X3801

0.32H SKEW C.B.A.	
Transistor	
Q3801	A-3
Q3802	B-2
Q3803	B-3
Q3805	A-4
Q3901	B-2
Q3902	B-2
Transistor & Resistor	
QR3801	A-3
QR3804	B-3
QR3901	A-1
QR3902	A-1
QR3903	A-1
Integrated Circuit	
IC3801	B-3
IC3802	A-4
IC3901	B-2
Adjustment	
VR3801	B-2
VR3802	B-3
VR3901	B-1
Connector	
P3801	B-4
P3901	B-1

ADDRESS INFORMATION

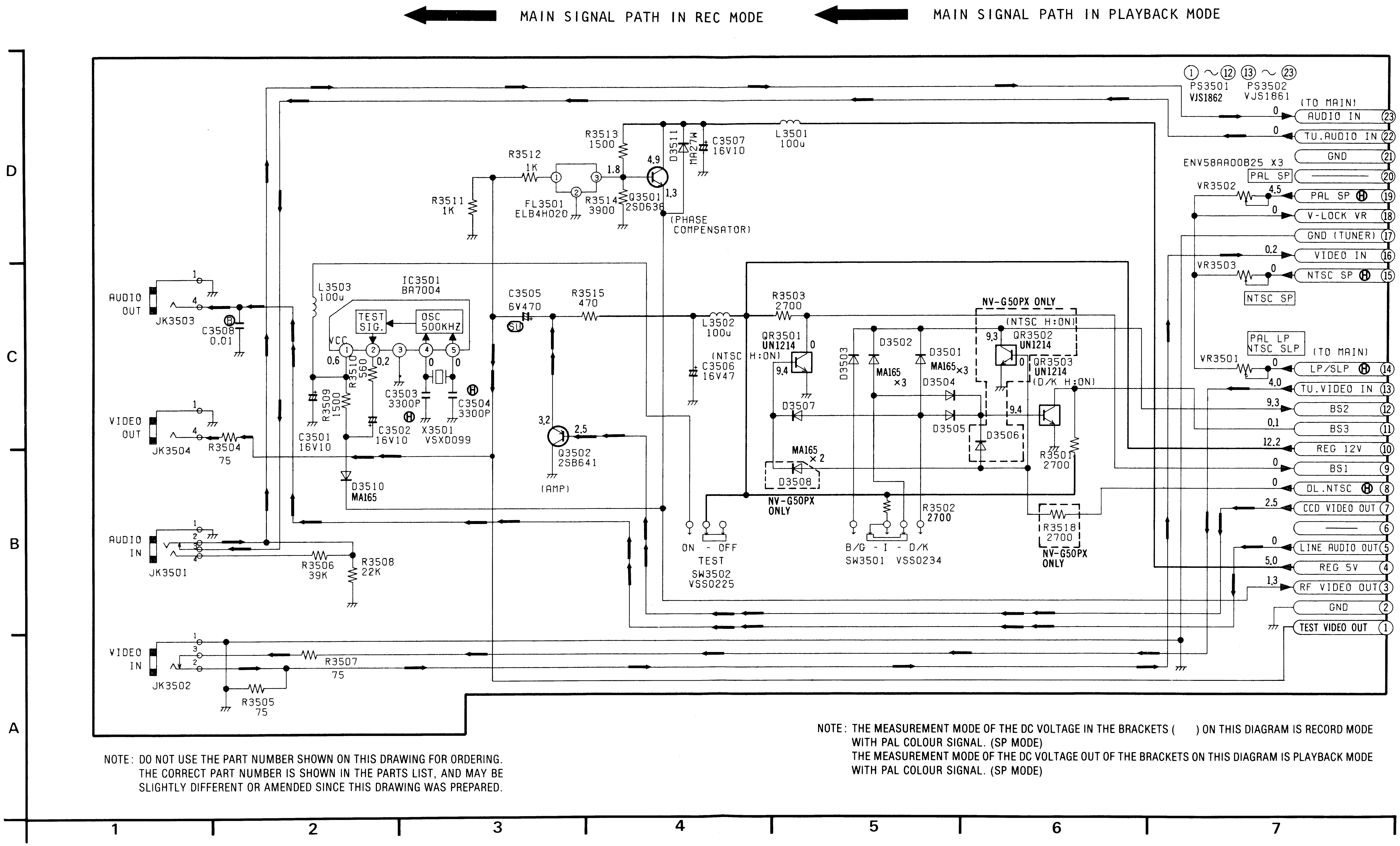
3-16. INPUT/OUTPUT PACK C.B.A. (VEP03487C: NV-G50PX) (VEP03487B: NV-G300EM)


B
A
1
2
3
IC3501
C3501
QR3503
QR3502
QR3501
NV-G50PX
FL3501
C3505
Q3501
Q3502
PAL LP NTSC SLP
VR3501
VR3502
VR3503
R3510
SW3502
TEST SIGNAL
OFF ←→ ON
SW3501
L3502
B/G—I—D/K
PAL SP
NTSC SP
R3518
NV-G50PX
C3508
R3501
R3504
AUDIO IN
VIDEO IN
AUDIO OUT
VIDEO OUT
R3506
R3508
PS3502
R3507
R3505
PS3501
23 20 15 13
12 10 5 1

INPUT/OUTPUT PACK C.B.A.	
Transistor	
Q3501	B-3
Q3502	B-3
Transistor & Resistor	
QR3501	B-2
QR3502	B-2
QR3503	B-2
Integrated Circuit	
IC3501	B-1
Adjustment	
VR3501	B-1
VR3502	B-1
VR3503	B-2

ADDRESS INFORMATION

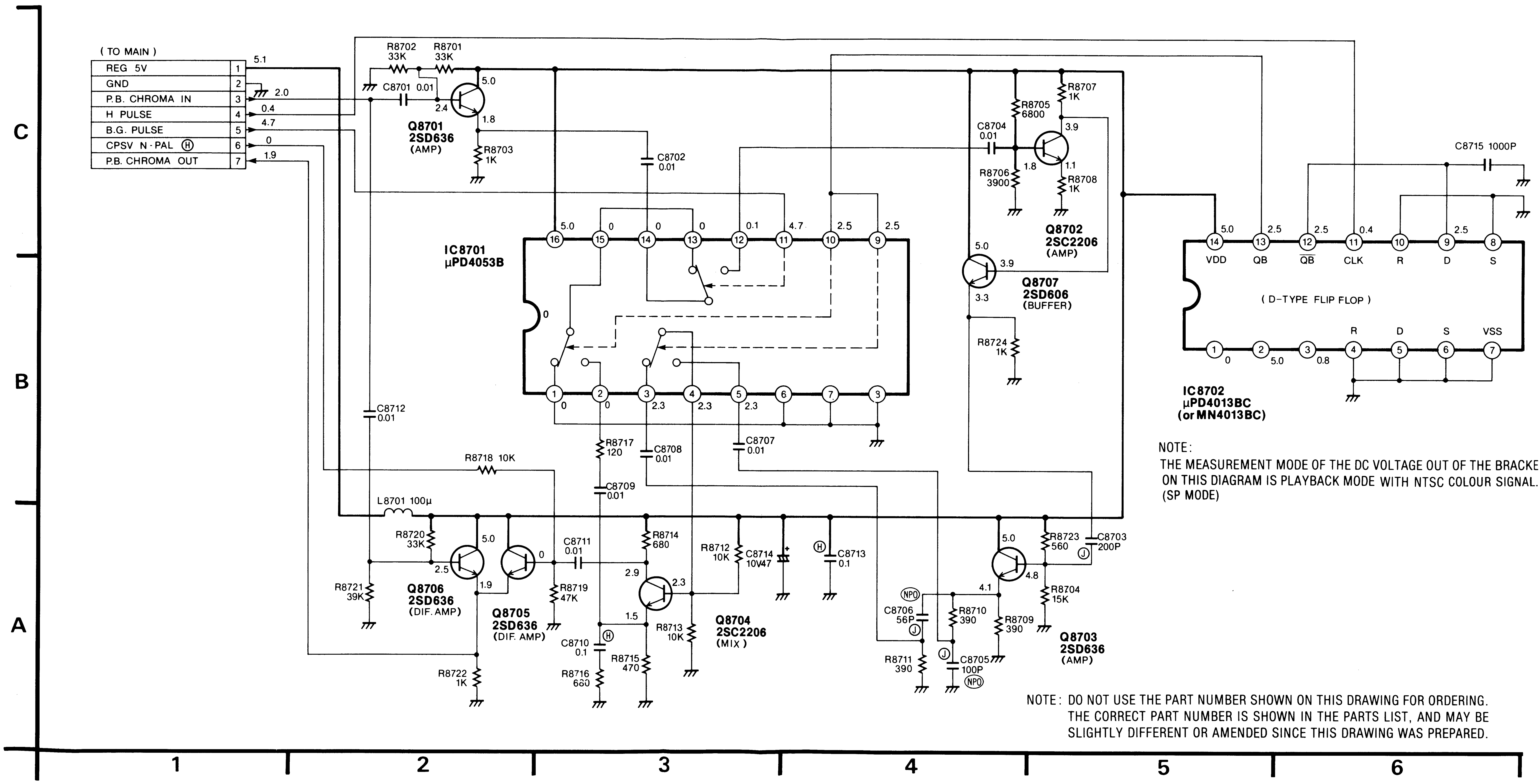
3-17. INPUT/OUTPUT PACK SCHEMATIC DIAGRAM


MAIN SIGNAL PATH IN REC MODE
MAIN SIGNAL PATH IN PLAYBACK MODE
① ~ ⑫ ⑬ ~ ㉓
PS3501 VJS1862
PS3502 VJS1861
(TO MAIN)
AUDIO IN ㉓
TU.AUDIO IN ㉒
GND ㉑
⑳
PAL SP ⑲
V-LOCK VR ⑱
GND (TUNER) ⑰
VIDEO IN ⑯
NTSC SP ⑮
LP/SLP ⑭
TU.VIDEO IN ⑬
BS2 ⑫
BS3 ⑪
REG 12V ⑩
BS1 ⑨
DL.NTSC ⑧
CCD VIDEO OUT ⑦
⑥
LINE AUDIO OUT ⑤
REG 5V ④
RF VIDEO OUT ③
GND ②
TEST VIDEO OUT ①
ENV58AA00B25 X3
PAL SP
VR3502
VR3503
NTSC SP
PAL LP
NTSC SLP
VR3501
R3513 1500
R3512 1K
R3511 1K
FL3501 ELB4H020
R3514 3900
Q3501 2SD636
(PHASE COMPENSATOR)
D3511 MA27W
C3507 16V10
L3501 100u
AUDIO OUT
JK3503
C3508 0.01
L3503 100u
IC3501 BA7004
TEST SIG.
OSC 500KHZ
VCC
R3510 560
R3509 1500
C3501 16V10
C3503 3300P
C3504 3300P
C3502 16V10
X3501 VSX0099
D3510 MA165
C3505 6V470
R3515 470
Q3502 2SB641
(AMP)
L3502 100u
C3506 16V47
(NTSC H:ON)
R3503 2700
QR3501 UN1214
D3507
MA165 ×2
D3508
NV-G50PX ONLY
D3503
D3502
MA165 ×3
D3501
MA165 ×3
D3504
D3505
D3506
QR3502 UN1214
QR3503 UN1214
(D/K H:ON)
R3501 2700
R3518 2700
R3502 2700
ON - OFF TEST SW3502 VSS0225
B/G - I - D/K SW3501 VSS0234
VIDEO OUT
JK3504
R3504 75
AUDIO IN
JK3501
R3506 39K
R3508 22K
VIDEO IN
JK3502
R3507 75
R3505 75
1.8
4.9
1.3
0.6
0.2
3.2
2.5
9.4
9.3
4.5
12.2
5.0
4.0
0.1
A
B
C
D
1
2
3
4
5
6
7

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING.
THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP MODE)

3-18. ARTIFICIAL PAL PACK SCHEMATIC DIAGRAM (NV-G300EM ONLY)

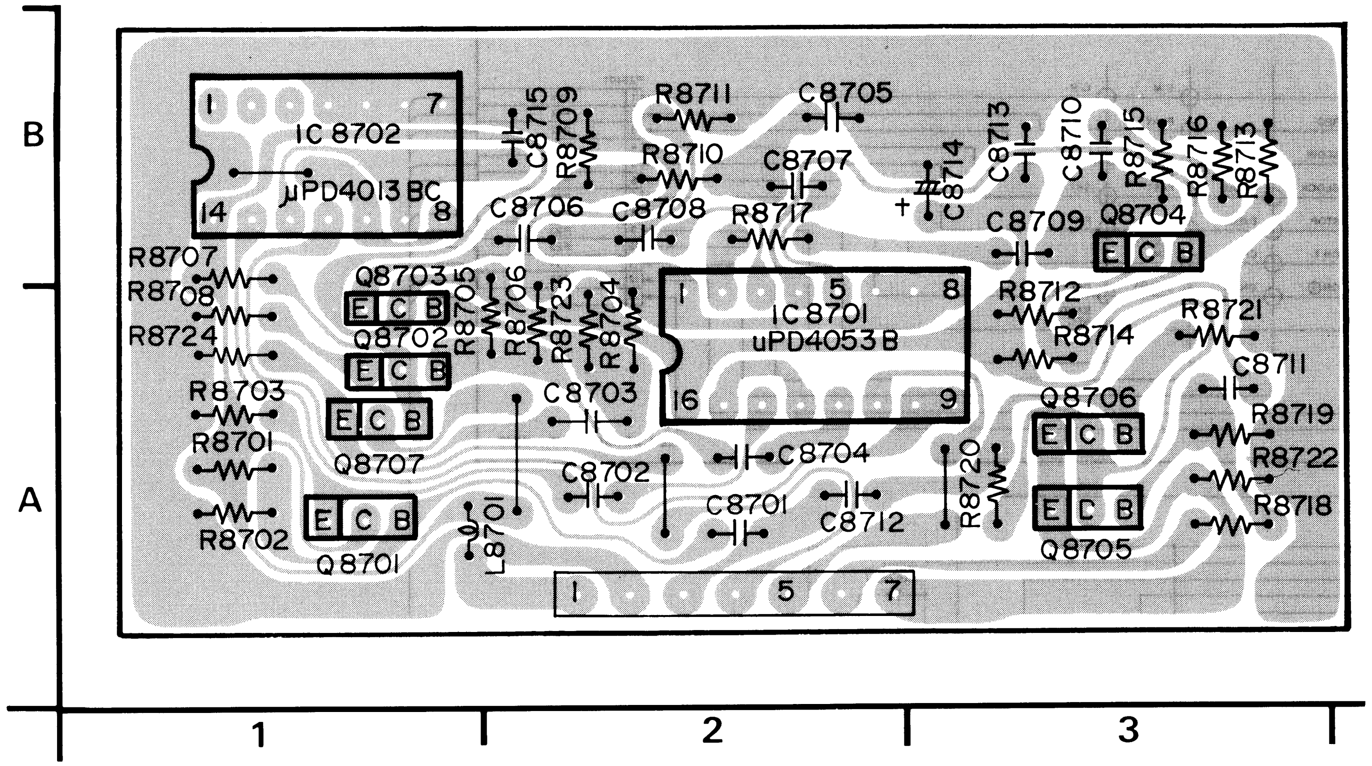

(TO MAIN)
REG 5V 1
GND 2
P.B. CHROMA IN 3
H PULSE 4
B.G. PULSE 5
CPSV N·PAL Ⓗ 6
P.B. CHROMA OUT 7
5.1
2.0
0.4
4.7
0
1.9
R8702 33K
R8701 33K
C8701 0.01
5.0
2.4
1.8
Q8701
2SD636
(AMP)
R8703 1K
C8702 0.01
R8705 6800
R8707 1K
C8704 0.01
3.9
1.8
1.1
R8706 3900
R8708 1K
Q8702
2SC2206
(AMP)
5.0
3.9
3.3
Q8707
2SD606
(BUFFER)
R8724 1K
IC8701
μPD4053B
5.0
0
0
0
0.1
4.7
2.5
2.5
0
0
2.3
2.3
2.3
C8712 0.01
R8717 120
C8708 0.01
C8707 0.01
C8709 0.01
R8718 10K
L8701 100μ
R8720 33K
5.0
2.5
1.9
0
Q8706
2SD636
(DIF. AMP)
R8721 39K
Q8705
2SD636
(DIF. AMP)
C8711 0.01
R8719 47K
R8714 680
2.9
2.3
1.5
R8712 10K
C8714 10V47
Ⓗ
C8713 0.1
Q8704
2SC2206
(MIX)
C8710 0.1
Ⓗ
R8715 470
R8713 10K
R8716 680
R8722 1K
NPO
C8706 56P
Ⓙ
R8710 390
R8711 390
Ⓙ
C8705 100P
NPO
5.0
4.1
4.8
R8723 560
C8703 200P
Ⓙ
R8704 15K
R8709 390
Q8703
2SD636
(AMP)
C8715 1000P
5.0
2.5
2.5
0.4
2.5
VDD
QB
$\overline{QB}$
CLK
R
D
S
(D-TYPE FLIP FLOP)
R
D
S
VSS
0
5.0
0.8
IC8702
μPD4013BC
(or MN4013BC)
C
B
A
1
2
3
4
5
6

NOTE:
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH NTSC COLOUR SIGNAL. (SP MODE)

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

Back Page:
INPUT/OUTPUT PACK Section

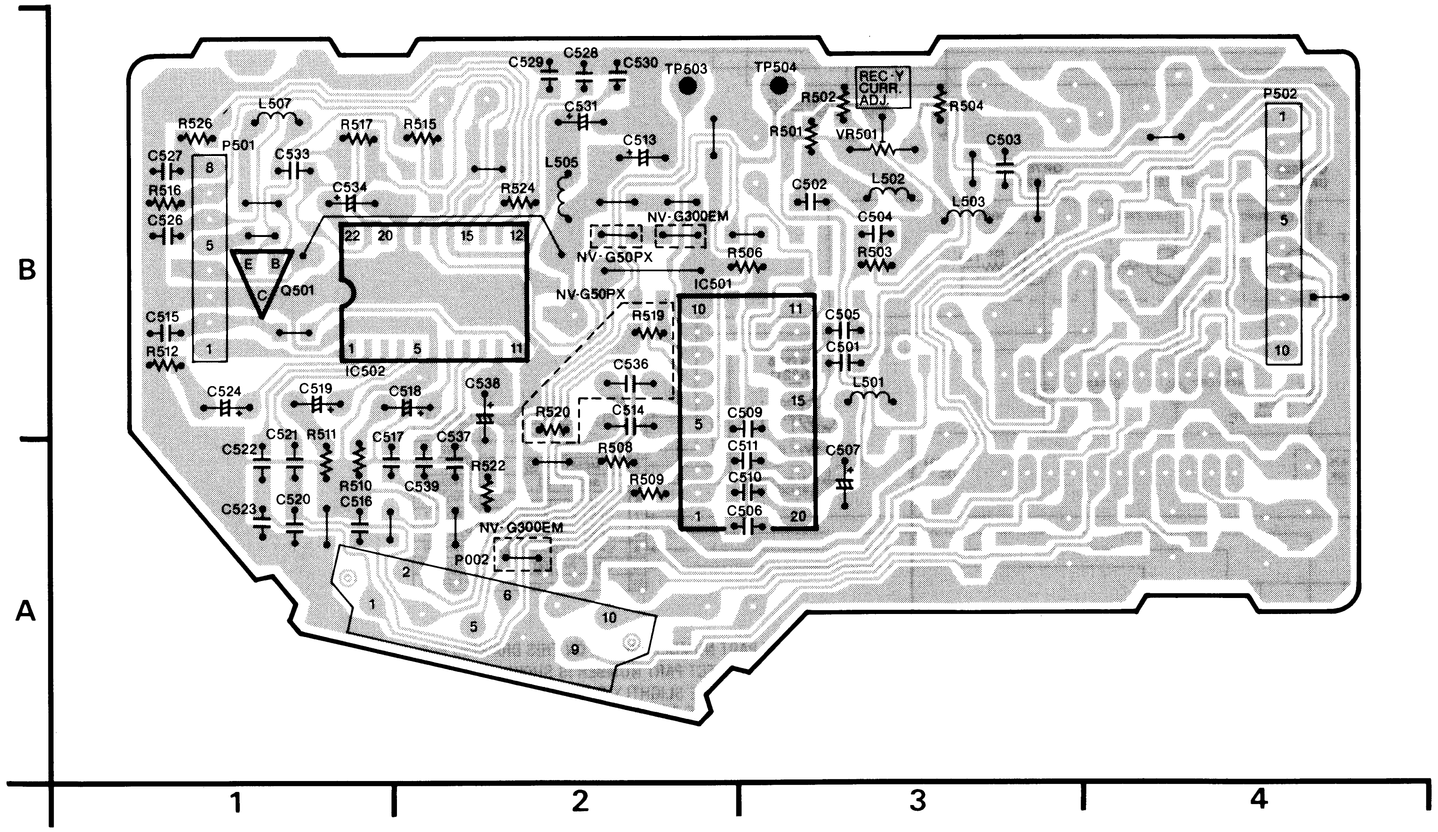
3-19. ARTIFICIAL PAL PACK C.B.A. (VEP03358A: NV-G300EM ONLY)


B
A
1
2
3
IC 8702
µPD4013BC
IC 8701
uPD4053B
Q8701
Q8702
Q8703
Q8704
Q8705
Q8706
Q8707
R8701
R8702
R8703
R8704
R8705
R8706
R8707
R8708
R8709
R8710
R8711
R8712
R8713
R8714
R8715
R8716
R8717
R8718
R8719
R8720
R8721
R8722
R8723
R8724
C8701
C8702
C8703
C8704
C8705
C8706
C8707
C8708
C8709
C8710
C8711
C8712
C8713
C8714
C8715
L8701
E C B

ARTIFICIAL PAL PACK C.B.A.	
Transistor	
Q8701	A-1
Q8702	A-1
Q8703	A-1
Q8704	B-3
Q8705	A-3
Q8706	A-3
Q8707	A-1
Integrated Circuit	
IC8701	A-2
IC8702	B-1

ADDRESS INFORMATION

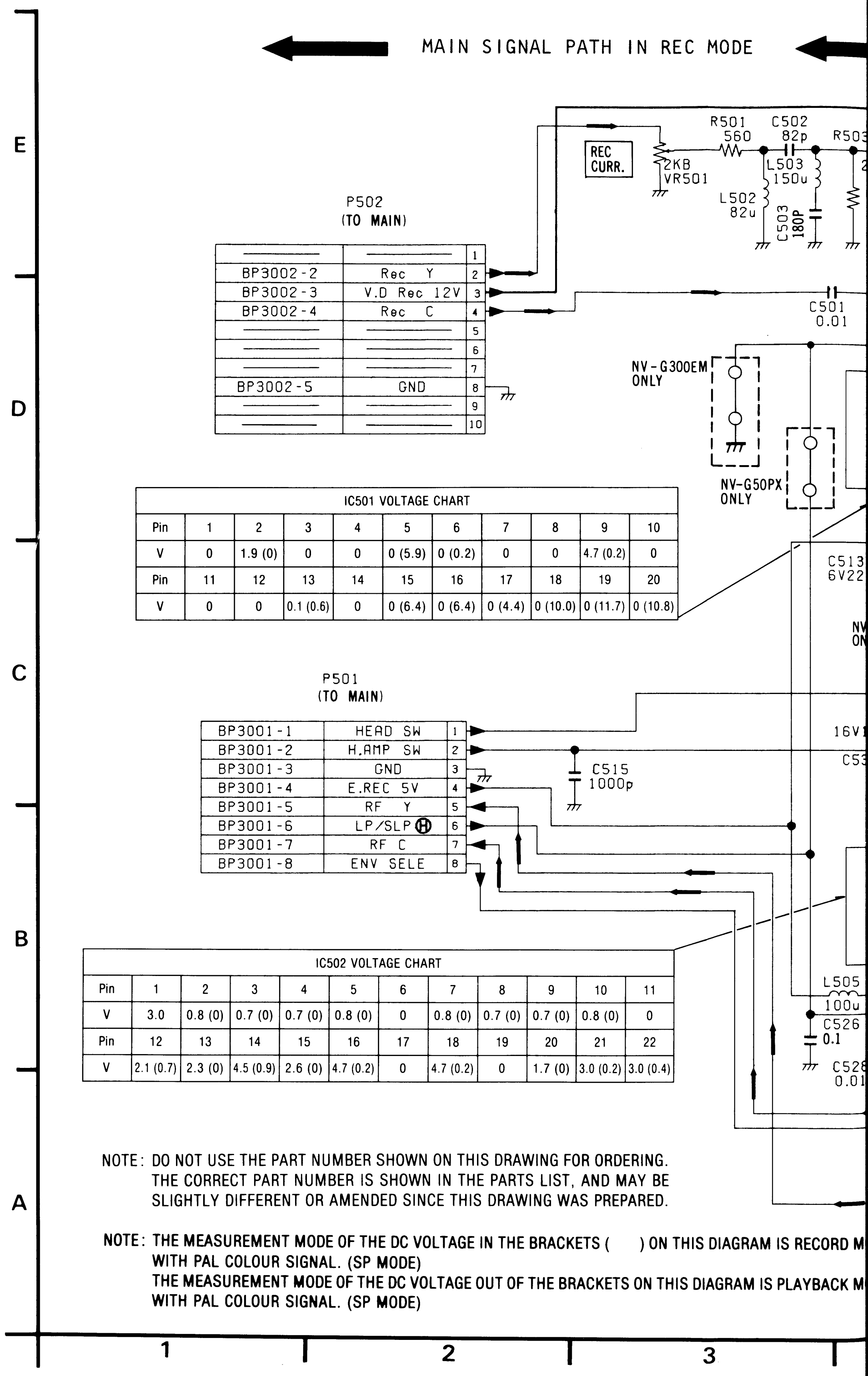
3-20. HEAD AMP C.B.A. (VEP05113G: NV-G50PX) (VEP05113F: NV-G300EM)


B
A
1
2
3
4
IC501
IC502
Q501
TP503
TP504
REC-Y CURR. ADJ.
VR501
P501
P502
P002
NV-G300EM
NV-G50PX
L501
L502
L503
L505
L507
R501
R502
R503
R504
R506
R508
R509
R510
R511
R512
R515
R516
R517
R519
R520
R522
R524
R526
C501
C502
C503
C504
C505
C506
C507
C509
C510
C511
C513
C514
C515
C516
C517
C518
C519
C520
C521
C522
C523
C524
C526
C527
C528
C529
C530
C531
C533
C534
C536
C537
C538
C539

HEAD AMP C.B.A.	
Transistor	
Q501	B-1
Integrated Circuit	
IC501 IC502	B-1 B-2
Test Point	
TP503 TP504	B-2 B-3
Adjustment	
VR501	B-3
Connector	
P002 P501 P502	A-2 B-1 B-4

ADDRESS INFORMATION

3-21. HEAD AMP SCHEMATIC DIAGRAM


MAIN SIGNAL PATH IN REC MODE
E
D
C
B
A
1
2
3
P502
(TO MAIN)
BP3002-2 Rec Y 2
BP3002-3 V.D Rec 12V 3
BP3002-4 Rec C 4
BP3002-5 GND 8
REC CURR.
2KB
VR501
R501
560
C502
82p
R503
L503
150u
L502
82u
C503
180P
C501
0.01
NV-G300EM ONLY
NV-G50PX ONLY
C513
6V22
P501
(TO MAIN)
BP3001-1 HEAD SW 1
BP3001-2 H.AMP SW 2
BP3001-3 GND 3
BP3001-4 E.REC 5V 4
BP3001-5 RF Y 5
BP3001-6 LP/SLP Ⓗ 6
BP3001-7 RF C 7
BP3001-8 ENV SELE 8
C515
1000p
16V1
C53
L505
100u
C526
0.1
C528
0.01

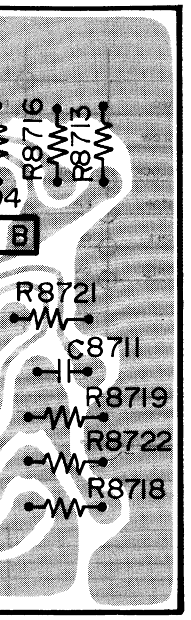
IC501 VOLTAGE CHART										
Pin	1	2	3	4	5	6	7	8	9	10
V	0	1.9 (0)	0	0	0 (5.9)	0 (0.2)	0	0	4.7 (0.2)	0
Pin	11	12	13	14	15	16	17	18	19	20
V	0	0	0.1 (0.6)	0	0 (6.4)	0 (6.4)	0 (4.4)	0 (10.0)	0 (11.7)	0 (10.8)

IC502 VOLTAGE CHART											
Pin	1	2	3	4	5	6	7	8	9	10	11
V	3.0	0.8 (0)	0.7 (0)	0.7 (0)	0.8 (0)	0	0.8 (0)	0.7 (0)	0.7 (0)	0.8 (0)	0
Pin	12	13	14	15	16	17	18	19	20	21	22
V	2.1 (0.7)	2.3 (0)	4.5 (0.9)	2.6 (0)	4.7 (0.2)	0	4.7 (0.2)	0	1.7 (0)	3.0 (0.2)	3.0 (0.4)

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD M WITH PAL COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK M WITH PAL COLOUR SIGNAL. (SP MODE)

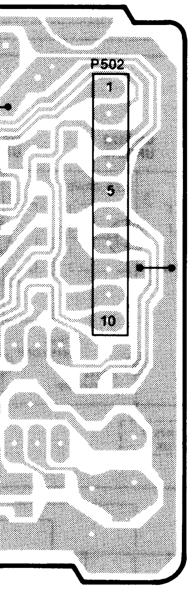
3-21. HEAD AMP SCHEMATIC DIAGRAM


R8716
R8713
B
R8721
C8711
R8719
R8722
R8718

ARTIFICIAL PAL PACK C.B.A.	
Transistor	
Q8701	A-1
Q8702	A-1
Q8703	A-1
Q8704	B-3
Q8705	A-3
Q8706	A-3
Q8707	A-1
Integrated Circuit	
IC8701	A-2
IC8702	B-1

ADDRESS INFORMATION

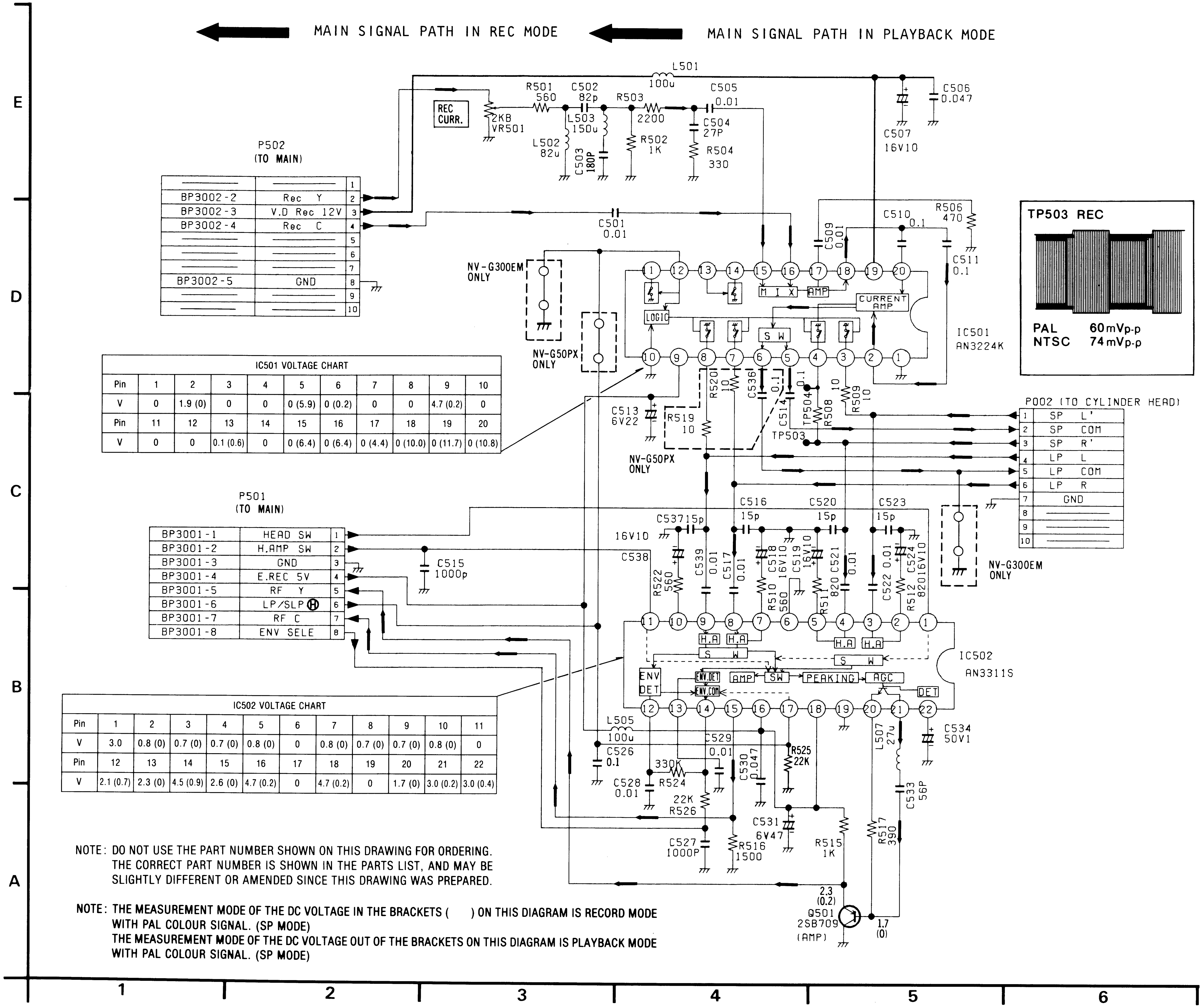
NV-G300EM)



HEAD AMP C.B.A.	
Transistor	
Q501	B-1
Integrated Circuit	
IC501	B-1
IC502	B-2
Test Point	
TP503	B-2
TP504	B-3
Adjustment	
VR501	B-3
Connector	
P002	A-2
P501	B-1
P502	B-4

ADDRESS INFORMATION

4


MAIN SIGNAL PATH IN REC MODE
MAIN SIGNAL PATH IN PLAYBACK MODE
E
D
C
B
A
1
2
3
4
5
6
REC CURR.
2KB VR501
R501 560
C502 82p
R503 2200
L501 100u
C505 0.01
C506 0.047
C507 16V10
L503 150u
L502 82u
C503 180P
R502 1K
C504 27P
R504 330
P502 (TO MAIN)
BP3002-2 Rec Y 2
BP3002-3 V.D Rec 12V 3
BP3002-4 Rec C 4
BP3002-5 GND 8
C501 0.01
NV-G300EM ONLY
NV-G50PX ONLY
C509 0.01
C510 0.1
R506 470
C511 0.1
MIX
AMP
CURRENT AMP
LOGIC
SW
IC501 AN3224K
TP503 REC
PAL 60mVp-p
NTSC 74mVp-p
C513 6V22
R519 10
R520 10
C536
C514 0.1
TP504
R508 10
R509 10
TP503
P002 (TO CYLINDER HEAD)
1 SP L'
2 SP COM
3 SP R'
4 LP L
5 LP COM
6 LP R
7 GND
P501 (TO MAIN)
BP3001-1 HEAD SW 1
BP3001-2 H.AMP SW 2
BP3001-3 GND 3
BP3001-4 E.REC 5V 4
BP3001-5 RF Y 5
BP3001-6 LP/SLP Ⓗ 6
BP3001-7 RF C 7
BP3001-8 ENV SELE 8
C515 1000p
C537 15p
16V10
C538
R522 560
C539 0.01
C517 0.01
C516 15p
C518 16V10
C519 16V10
R510 560
C520 15p
R511 820
C521 0.01
C523 15p
C522 0.01
C524 16V10
R512 820
H.A
SW
ENV DET
ENV.DET
ENV.COM
AMP
PEAKING
AGC
DET
IC502 AN3311S
C534 50V1
L505 100u
C526 0.1
C528 0.01
R524 330K
R526 22K
C529 0.01
C530 0.047
R525 22K
L507 27u
C533 56P
C531 6V47
C527 1000P
R516 1500
R515 1K
R517 390
2.3 (0.2)
Q501 2SB709 (AMP)
1.7 (0)
NV-G300EM ONLY

IC501 VOLTAGE CHART

Pin	1	2	3	4	5	6	7	8	9	10
V	0	1.9 (0)	0	0	0 (5.9)	0 (0.2)	0	0	4.7 (0.2)	0
Pin	11	12	13	14	15	16	17	18	19	20
V	0	0	0.1 (0.6)	0	0 (6.4)	0 (6.4)	0 (4.4)	0 (10.0)	0 (11.7)	0 (10.8)

IC502 VOLTAGE CHART

Pin	1	2	3	4	5	6	7	8	9	10	11
V	3.0	0.8 (0)	0.7 (0)	0.7 (0)	0.8 (0)	0	0.8 (0)	0.7 (0)	0.7 (0)	0.8 (0)	0
Pin	12	13	14	15	16	17	18	19	20	21	22
V	2.1 (0.7)	2.3 (0)	4.5 (0.9)	2.6 (0)	4.7 (0.2)	0	4.7 (0.2)	0	1.7 (0)	3.0 (0.2)	3.0 (0.4)

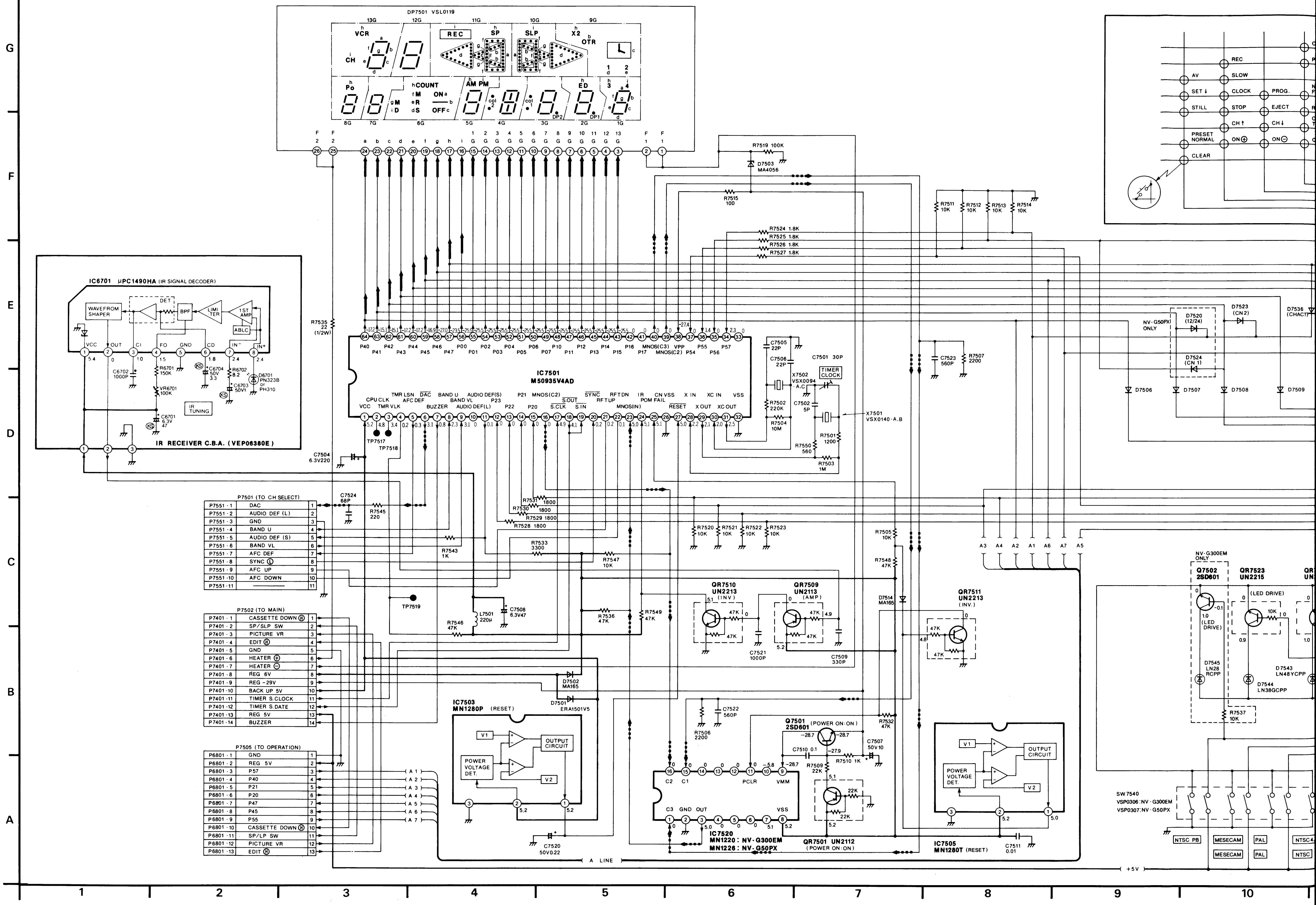
NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP MODE)

Next Page:
TIMER Section

3-22. TIMER SCHEMATIC DIAGRAM

SEGMENT CONTROL SIGNAL   GRID CONTROL SIGNAL   TUNE CONTROL SIGNAL



DP7501 VSL0119
VCR
CH
REC
SP
SLP
X2
OTR
COUNT
AM PM
ON
OFF
ED
DP2
DP1
13G
12G
11G
10G
9G
8G
7G
6G
5G
4G
3G
2G
1G
IC6701 μPC1490HA (IR SIGNAL DECODER)
WAVEFROM SHAPER
DET
BPF
LIMI TER
1ST AMP
ABLC
IR TUNING
IR RECEIVER C.B.A. (VEP06380E)
R6701 150K
C6702 1000P
VR6701 100K
C6704 50V 3.3
R6702 8.2
C6703 50V1
D6701 PN323B or PH310
C6701 6.3V 47
R7535 22 (1/2W)
C7504 6.3V220
IC7501 M50935V4AD
TP7517
TP7518
TP7519
C7524 68P
R7545 220
R7543 1K
R7546 47K
L7501 220μ
C7508 6.3V47
R7531 1800
R7530 1800
R7529 1800
R7528 1800
R7533 3300
R7547 10K
R7536 47K
R7549 47K
R7519 100K
D7503 MA4056
R7515 100
R7524 1.8K
R7525 1.8K
R7526 1.8K
R7527 1.8K
R7511 10K
R7512 10K
R7513 10K
R7514 10K
C7505 22P
C7506 22P
C7501 30P
TIMER CLOCK
X7502 VSX0094-A.C
C7502 5P
R7502 220K
R7504 10M
X7501 VSX0140-A.B
R7501 1200
R7550 560
R7503 1M
C7523 560P
R7507 2200
R7520 10K
R7521 10K
R7522 10K
R7523 10K
QR7510 UN2213 (INV)
QR7509 UN2113 (AMP)
C7521 1000P
C7509 330P
R7505 10K
R7548 47K
D7514 MA165
QR7511 UN2213 (INV.)
D7502 MA165
D7501 ERA1501V5
IC7503 MN1280P (RESET)
POWER VOLTAGE DET.
OUTPUT CIRCUIT
C7520 50V0.22
C7522 560P
R7506 2200
Q7501 2SD601 (POWER ON·ON)
C7510 0.1
R7510 1K
R7509 22K
C7507 50V10
R7532 47K
QR7501 UN2112 (POWER ON·ON)
IC7520 MN1220: NV-G300EM MN1226: NV-G50PX
IC7505 MN1280T (RESET)
C7511 0.01
A LINE
+5V
NV-G50PX ONLY
D7520 (12/24)
D7524 (CN 1)
D7523 (CN2)
D7536 (CHACT)
D7506
D7507
D7508
D7509
A3 A4 A2 A1 A6 A7 A5
NV-G300EM ONLY
Q7502 2SD601
QR7523 UN2215
(LED DRIVE)
D7545 LN28 RCPP
D7543 LN48YCPP
D7544 LN38GCPP
R7537 10K
SW7540 VSP0306: NV-G300EM VSP0307: NV-G50PX
NTSC PB
MESECAM
PAL
NTSC
REC
AV
SLOW
SET ↓
CLOCK
PROG.
STILL
STOP
EJECT
CH ↑
CH ↓
PRESET NORMAL
ON⊕
ON⊖
CLEAR
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10

P7501 (TO CH SELECT)

P7551 - 1	DAC	1
P7551 - 2	AUDIO DEF (L)	2
P7551 - 3	GND	3
P7551 - 4	BAND U	4
P7551 - 5	AUDIO DEF (S)	5
P7551 - 6	BAND VL	6
P7551 - 7	AFC DEF	7
P7551 - 8	SYNC Ⓛ	8
P7551 - 9	AFC UP	9
P7551 -10	AFC DOWN	10
P7551 -11	————	11

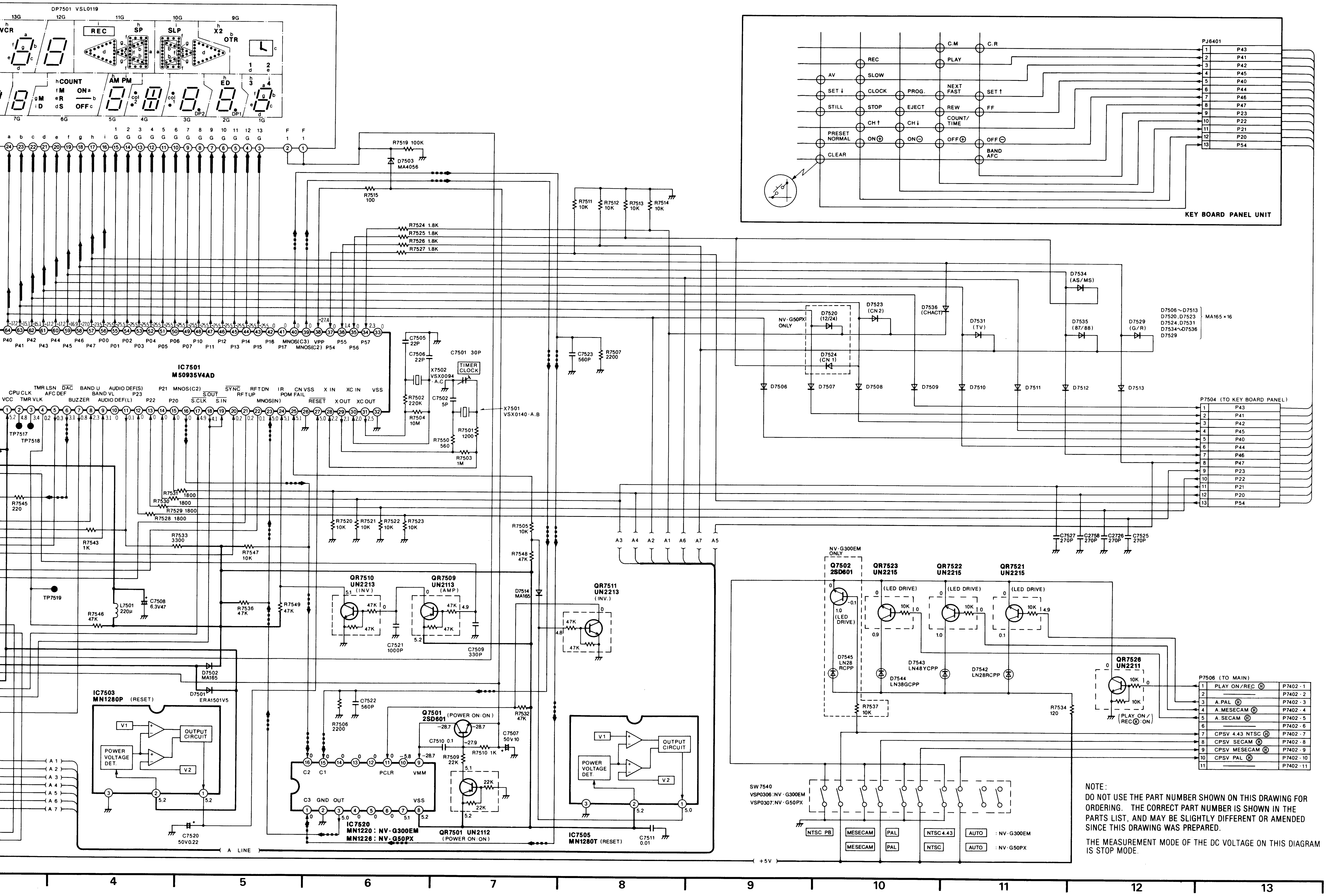
P7502 (TO MAIN)

P7401 - 1	CASSETTE DOWN Ⓗ	1
P7401 - 2	SP/SLP SW	2
P7401 - 3	PICTURE VR	3
P7401 - 4	EDIT Ⓗ	4
P7401 - 5	GND	5
P7401 - 6	HEATER ⊕	6
P7401 - 7	HEATER ⊖	7
P7401 - 8	REG 6V	8
P7401 - 9	REG −29V	9
P7401 -10	BACK UP 5V	10
P7401 -11	TIMER S.CLOCK	11
P7401 -12	TIMER S.DATE	12
P7401 -13	REG 5V	13
P7401 -14	BUZZER	14

P7505 (TO OPERATION)

P6801 - 1	GND	1
P6801 - 2	REG 5V	2
P6801 - 3	P57	3
P6801 - 4	P40	4
P6801 - 5	P21	5
P6801 - 6	P20	6
P6801 - 7	P47	7
P6801 - 8	P45	8
P6801 - 9	P55	9
P6801 -10	CASSETTE DOWN Ⓗ	10
P6801 -11	SP/LP SW	11
P6801 -12	PICTURE VR	12
P6801 -13	EDIT Ⓗ	13

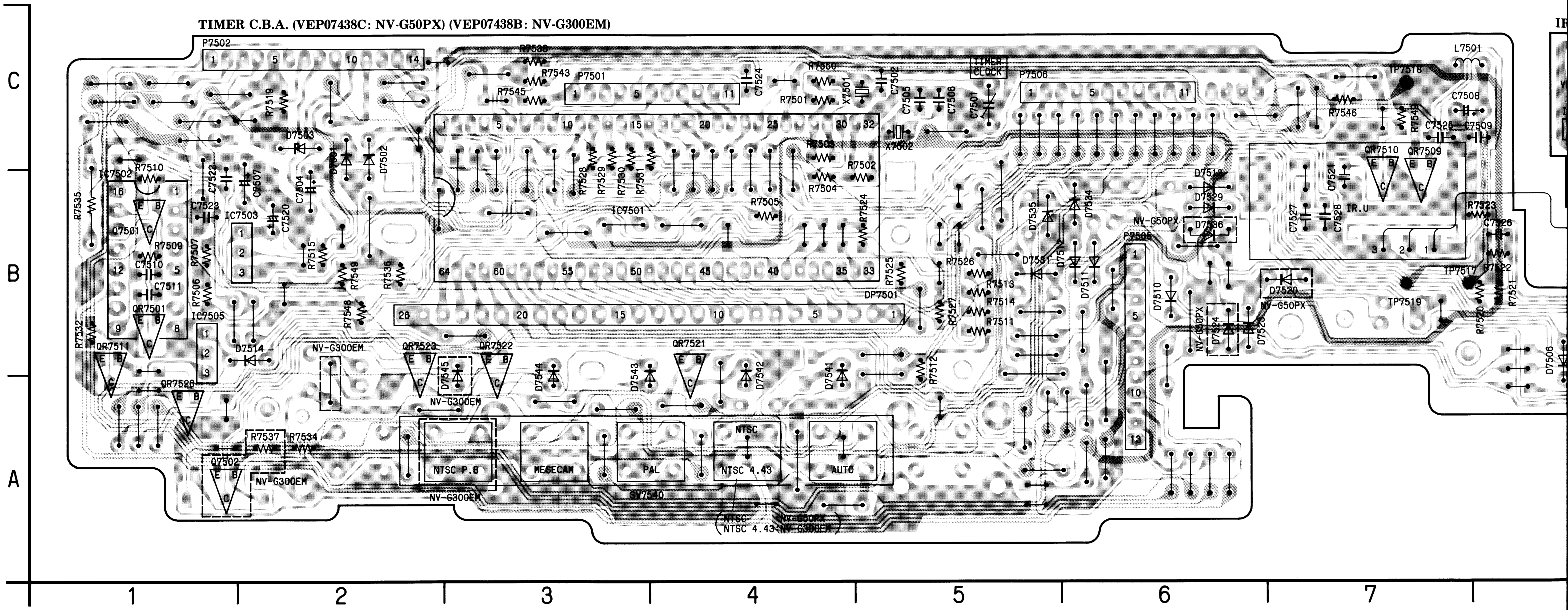
TROL SIGNAL ← GRID CONTROL SIGNAL ← ■ ■ ■ TUNE CONTROL SIGNAL


DP7501 VSL0119
VCR
REC
SP
SLP
X2
OTR
COUNT
AM PM
ED
IC7501
M50935V4AD
X7502 VSX0094-A.C
TIMER CLOCK
X7501 VSX0140-A.B
C7501 30P
R7519 100K
D7503 MA4056
R7515 100
R7524 1.8K
R7525 1.8K
R7526 1.8K
R7527 1.8K
R7511 10K
R7512 10K
R7513 10K
R7514 10K
PJ6401
AV
SET ↓
STILL
PRESET NORMAL
CLEAR
REC
SLOW
CLOCK
STOP
CH ↑
ON⊕
PROG.
EJECT
CH ↓
ON⊖
C.M
PLAY
NEXT FAST
REW
COUNT/TIME
OFF⊕
C.R
SET ↑
FF
OFF⊖
BAND AFC
KEY BOARD PANEL UNIT
D7534 (AS/MS)
D7520 (12/24)
D7524 (CN 1)
D7523 (CN 2)
D7536 (CHACT)
D7531 (TV)
D7535 (87/88)
D7529 (G/R)
NV-G50PX ONLY
D7506~D7513 D7520,D7523 D7524,D7531 D7534~D7536 D7529 MA165×16
P7504 (TO KEY BOARD PANEL)
IC7503 MN1280P (RESET)
POWER VOLTAGE DET.
OUTPUT CIRCUIT
QR7510 UN2213 (INV)
QR7509 UN2113 (AMP)
QR7511 UN2213 (INV.)
Q7501 2SD601 (POWER ON·ON)
IC7520 MN1220 : NV-G300EM MN1226 : NV-G50PX
QR7501 UN2112 (POWER ON·ON)
IC7505 MN1280T (RESET)
NV-G300EM ONLY
Q7502 2SD601
QR7523 UN2215
QR7522 UN2215
QR7521 UN2215
(LED DRIVE)
D7545 LN28RCPP
D7543 LN48YCPP
D7544 LN38GCPP
D7542 LN28RCPP
QR7526 UN2211
(PLAY ON/REC ® ON)
P7506 (TO MAIN)
PLAY ON/REC ®
A.PAL ®
A.MESECAM ®
A.SECAM ®
CPSV 4.43 NTSC ®
CPSV SECAM ®
CPSV MESECAM ®
CPSV PAL ®
SW7540 VSP0306:NV-G300EM VSP0307:NV-G50PX
NTSC PB
MESECAM
PAL
NTSC 4.43
NTSC
AUTO
: NV-G300EM
: NV-G50PX
A LINE
+5V
4
5
6
7
8
9
10
11
12
13

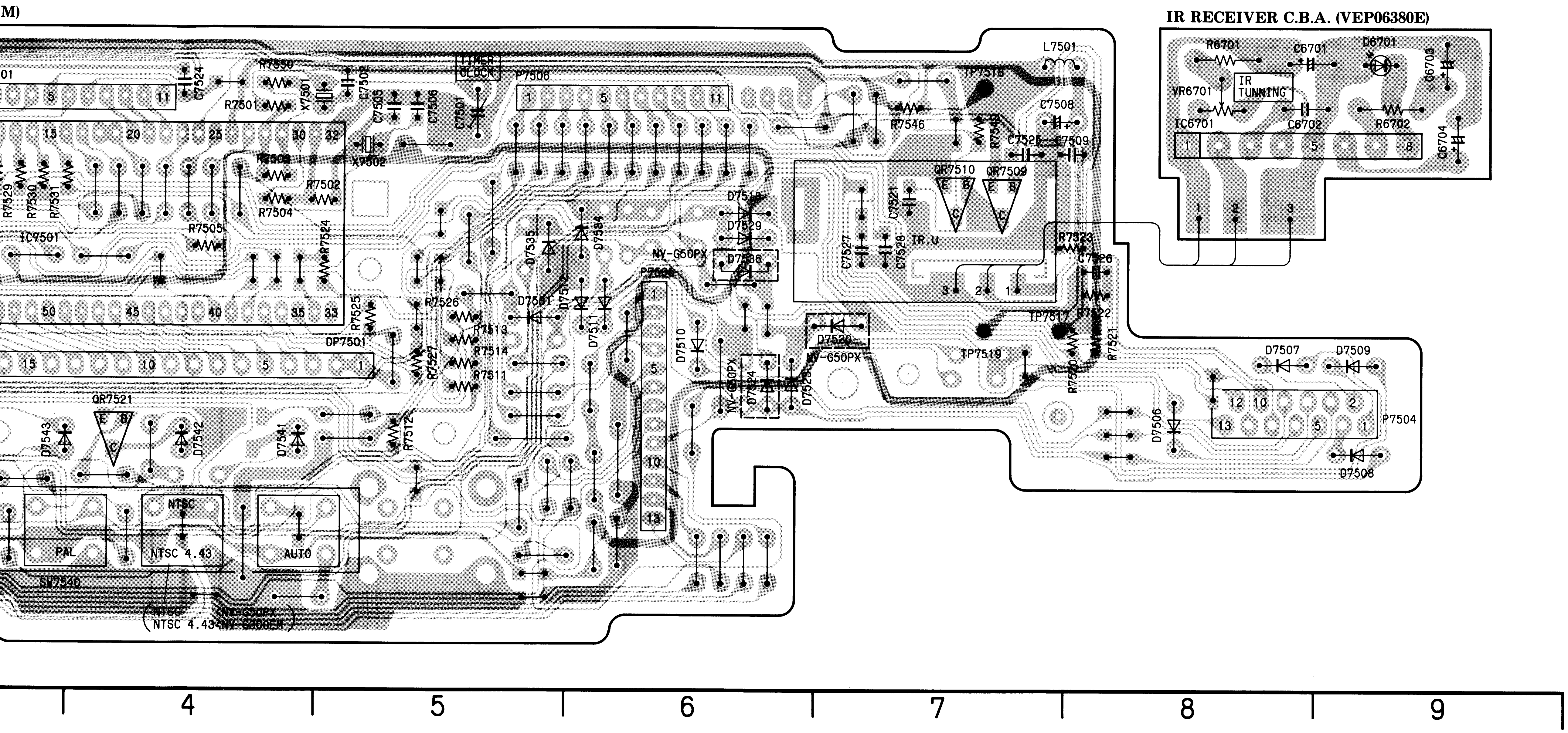
NOTE:
DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

3-23. TIMER C.B.A. (VEP07438C: NV-G50PX) (VEP07438B: NV-G300EM) & IR RECEIVER C.B.A. (VEP06380E)


TIMER C.B.A. (VEP07438C: NV-G50PX) (VEP07438B: NV-G300EM)
C
B
A
1
2
3
4
5
6
7
P7502
P7501
P7506
P7505
IC7501
IC7502
IC7503
IC7505
DP7501
X7501
X7502
L7501
TP7518
TP7517
TP7519
TIMER CLOCK
IR.U
QR7501
QR7509
QR7510
QR7511
QR7521
QR7522
QR7523
QR7526
Q7501
Q7502
SW7540
NTSC P.B
MESECAM
PAL
NTSC
NTSC 4.43
AUTO
NV-G300EM
NV-G50PX
(NTSC NV-G50PX
NTSC 4.43 NV-G300EM)
C7501
C7502
C7504
C7505
C7506
C7507
C7508
C7509
C7510
C7511
C7520
C7521
C7522
C7523
C7524
C7525
C7526
C7527
C7528
D7502
D7503
D7510
D7511
D7512
D7514
D7519
D7520
D7524
D7525
D7529
D7531
D7534
D7535
D7536
D7541
D7542
D7543
D7544
D7545
D7506
R7501
R7502
R7503
R7504
R7505
R7506
R7507
R7509
R7510
R7511
R7512
R7513
R7514
R7515
R7519
R7520
R7521
R7522
R7523
R7524
R7525
R7526
R7527
R7528
R7529
R7530
R7531
R7532
R7534
R7535
R7536
R7537
R7543
R7545
R7546
R7548
R7549
R7550

300EM) & IR RECEIVER C.B.A. (VEP06380E)

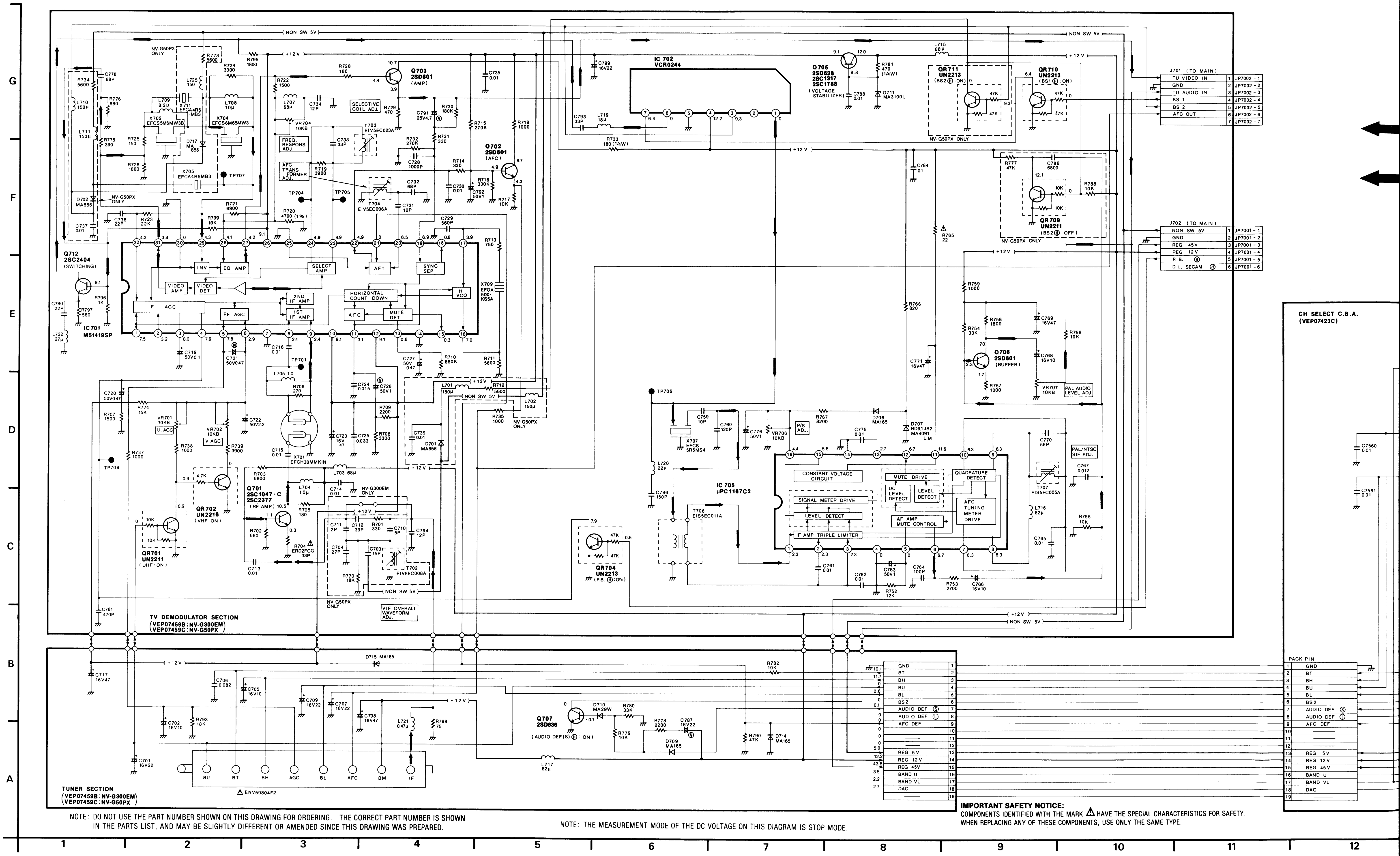

M)
IR RECEIVER C.B.A. (VEP06380E)
R6701
C6701
D6701
C6703
VR6701
IR TUNNING
C6702
R6702
IC6701
1
5
8
C6704
1
2
3
TIMER CLOCK
R7550
R7501
X7501
C7502
C7524
C7505
C7506
C7501
P7506
1
5
11
L7501
TP7518
C7508
R7546
R7549
C7525
C7509
X7502
R7503
R7502
R7504
R7505
R7524
R7529
R7530
R7531
IC7501
15
20
25
30
32
50
45
40
35
33
QR7510
QR7509
E
B
C
C7521
C7527
C7528
IR.U
R7523
C7526
3
2
1
D7513
D7529
D7536
NV-G50PX
P7505
D7535
D7534
D7531
D7512
D7511
R7526
R7513
R7514
R7511
R7525
R7527
DP7501
R7512
R7522
TP7517
R7521
R7520
TP7519
D7520
NV-G50PX
D7510
D7524
D7523
NV-G50PX
D7507
D7509
P7504
12
10
2
13
5
1
D7506
D7508
QR7521
D7543
D7542
D7541
NTSC
PAL
NTSC 4.43
AUTO
SW7540
NTSC
NTSC 4.43
NV-G50PX
NV-G300EM
4
5
6
7
8
9

TIMER C.B.A.			
Transistor		**Test Point**	
Q7501	B-1	TP7517 TP7518 TP7519	B-7 C-7 B-7
Transistor & Resistor		**Adjustment**	
QR7501 QR7502 QR7509 QR7510 QR7511 QR7521 QR7522 QR7523 QR7526	B-1 A-1 C-7 C-7 B-1 B-4 B-3 B-2 A-1	C7501 VR6701	C-5 C-8
		Connector	
		P7501 P7502 P7505 P7506	C-3 C-1 B-6 C-5
Integrated Circuit			
IC6501 IC7501 IC7502 IC7503 IC7505	C-8 B-3 B-1 B-1 B-1		

ADDRESS INFORMATION

Next Page:
CH SELECT, TV DEMODULATOR
& TUNER Section

3-24. CH SELECT. TV DEMODULATOR & TUNER SCHEMATIC DIAGRAM

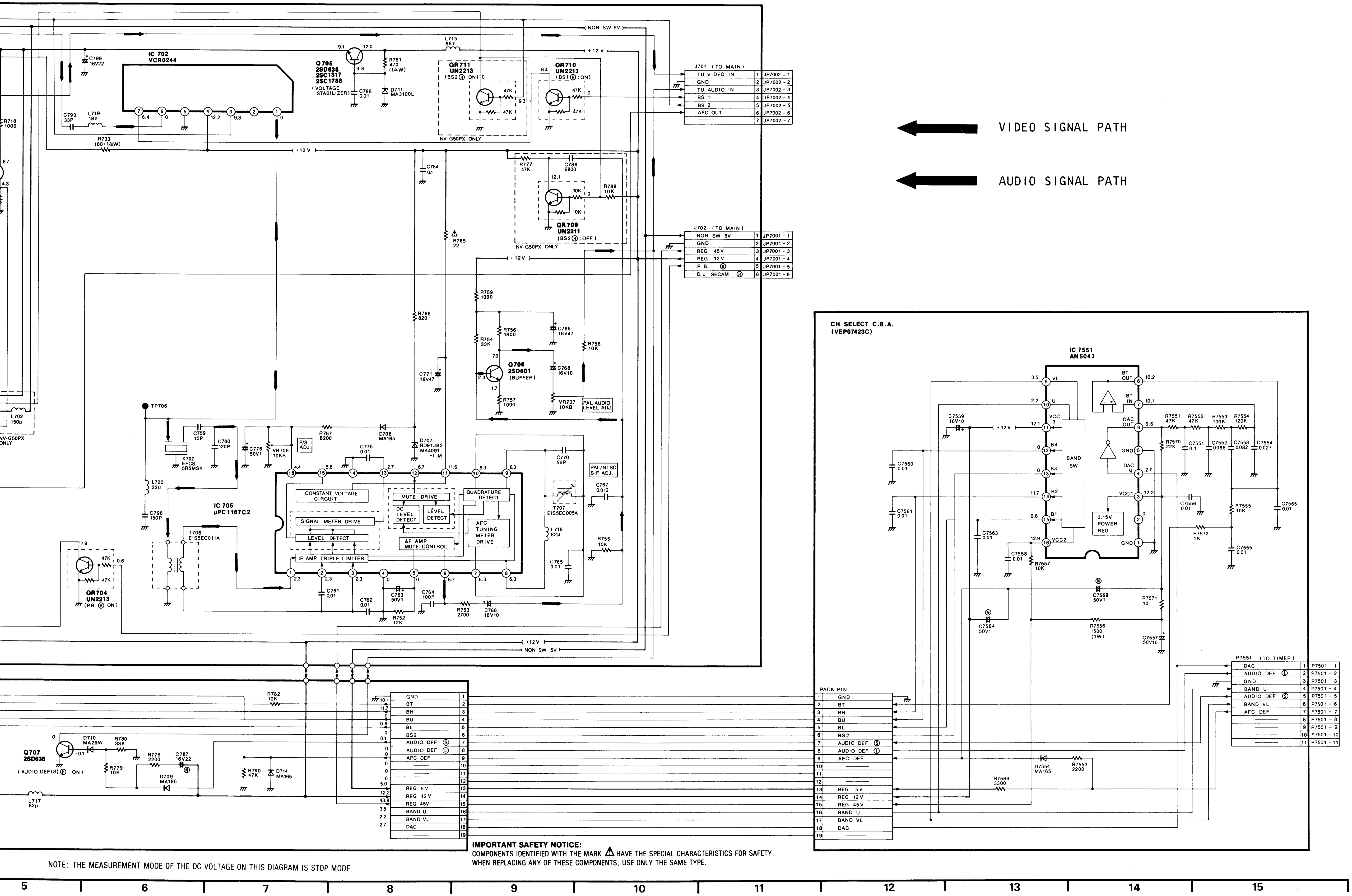

G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12
NON SW 5V
+12 V
IC 702
VCR0244
IC 701
M51419SP
IC 705
μPC1167C2
Q701
2SC1047·C
2SC2377
(RF AMP)
Q702
2SD601
(AFC)
Q703
2SD601
(AMP)
Q705
2SD638
2SC1317
2SC1788
(VOLTAGE STABILIZER)
Q706
2SD601
(BUFFER)
Q707
2SD636
(AUDIO DEF(S) Ⓗ : ON)
Q712
2SC2404
(SWITCHING)
QR701
UN2211
(UHF : ON)
QR702
UN2216
(VHF : ON)
QR704
UN2213
(P.B. Ⓗ : ON)
QR709
UN2211
(BS2 Ⓗ : OFF)
QR710
UN2213
(BS1 Ⓗ : ON)
QR711
UN2213
(BS2 Ⓗ : ON)
INV
EQ AMP
SELECT AMP
AFT
SYNC SEP
VIDEO AMP
VIDEO DET
2ND IF AMP
1ST IF AMP
IF AGC
RF AGC
HORIZONTAL COUNT DOWN
AFC
MUTE DET
H VCO
CONSTANT VOLTAGE CIRCUIT
SIGNAL METER DRIVE
LEVEL DETECT
IF AMP TRIPLE LIMITER
MUTE DRIVE
DC LEVEL DETECT
LEVEL DETECT
QUADRATURE DETECT
AFC TUNING METER DRIVE
AF AMP MUTE CONTROL
SELECTIVE COIL ADJ.
FREQ. RESPONS ADJ.
AFC TRANS-FORMER ADJ.
U. AGC
V. AGC
P/S ADJ.
PAL/NTSC SIF ADJ.
PAL AUDIO LEVEL ADJ.
VIF OVERALL WAVEFORM ADJ.
NV-G50PX ONLY
NV-G300EM ONLY
TP701
TP704
TP705
TP706
TP707
TP709
J701 (TO MAIN)
1 TU VIDEO IN JP7002-1
2 GND JP7002-2
3 TU AUDIO IN JP7002-3
4 BS 1 JP7002-4
5 BS 2 JP7002-5
6 AFC OUT JP7002-6
7 —— JP7002-7
J702 (TO MAIN)
1 NON SW 5V JP7001-1
2 GND JP7001-2
3 REG 45V JP7001-3
4 REG 12V JP7001-4
5 P.B. Ⓗ JP7001-5
6 D.L. SECAM Ⓗ JP7001-6
CH SELECT C.B.A.
(VEP07423C)
TV DEMODULATOR SECTION
(VEP07459B : NV-G300EM)
(VEP07459C : NV-G50PX)
TUNER SECTION
(VEP07459B : NV-G300EM)
(VEP07459C : NV-G50PX)
ENV59804F2
BU
BT
BH
AGC
BL
AFC
BM
IF
1 GND
2 BT
3 BH
4 BU
5 BL
6 BS2
7 AUDIO DEF Ⓢ
8 AUDIO DEF Ⓛ
9 AFC DEF
13 REG 5V
14 REG 12V
15 REG 45V
16 BAND U
17 BAND VL
18 DAC
PACK PIN

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

TIC DIAGRAM


IC 702
VCR0244
Q705
2SD638
2SC1317
2SC1788
(VOLTAGE STABILIZER)
R781 470 (1/4W)
D711 MA3100L
C788 0.01
L715 68µ
QR711
UN2213
(BS2 Ⓗ ON)
QR710
UN2213
(BS1 Ⓗ ON)
NV-G50PX ONLY
NON SW 5V
+12 V
C799 16V22
C793 33P
L719 18µ
R733 180 (1/4W)
R718 1000
J701 (TO MAIN)
TU VIDEO IN
GND
TU AUDIO IN
BS 1
BS 2
AFC OUT
JP7002 - 1
JP7002 - 2
JP7002 - 3
JP7002 - 4
JP7002 - 5
JP7002 - 6
JP7002 - 7
VIDEO SIGNAL PATH
AUDIO SIGNAL PATH
C784 0.1
R777 47K
C786 6800
R788 10K
QR709
UN2211
(BS2 Ⓗ : OFF)
R765 22
J702 (TO MAIN)
NON SW 5V
GND
REG 45V
REG 12V
P. B. Ⓗ
D.L. SECAM Ⓗ
JP7001 - 1
JP7001 - 2
JP7001 - 3
JP7001 - 4
JP7001 - 5
JP7001 - 6
R759 1000
R756 1800
R754 33K
C769 16V47
R758 10K
Q706
2SD601
(BUFFER)
C768 16V10
R757 1000
VR707 10KB
PAL AUDIO LEVEL ADJ.
R766 820
C771 16V47
TP706
L702 150µ
NV-G50PX ONLY
C759 10P
C760 120P
X707 EFCS 5R5MS4
C776 50V1
VR706 10KB
P/S ADJ.
R767 8200
D706 MA165
C775 0.01
D707 RD91JB2 MA4091 ~L,M
C770 56P
PAL/NTSC SIF ADJ.
C767 0.012
T707 EIS5EC005A
L716 82µ
R755 10K
C765 0.01
L720 22µ
C796 150P
IC 705
µPC1167C2
CONSTANT VOLTAGE CIRCUIT
SIGNAL METER DRIVE
LEVEL DETECT
IF AMP TRIPLE LIMITER
MUTE DRIVE
DC LEVEL DETECT
LEVEL DETECT
QUADRATURE DETECT
AFC TUNING METER DRIVE
AF AMP MUTE CONTROL
T706 EIS5EC011A
QR704
UN2213
(P.B. Ⓗ : ON)
C761 0.01
C762 0.01
C763 50V1
C764 100P
R752 12K
R753 2700
C766 16V10
R782 10K
Q707
2SD636
(AUDIO DEF(S) Ⓗ : ON)
D710 MA29W
R780 33K
R778 2200
C787 16V22
R779 10K
D709 MA165
R790 47K
D714 MA165
L717 82µ
GND
BT
BH
BU
BL
BS2
AUDIO DEF Ⓢ
AUDIO DEF Ⓛ
AFC DEF
REG 5V
REG 12V
REG 45V
BAND U
BAND VL
DAC
CH SELECT C.B.A.
(VEP07423C)
IC 7551
AN5043
VL
U
VCC 3
B4
B3
B2
B1
VCC2
BAND SW
BT OUT
BT IN
DAC OUT
GND
DAC IN
VCC1
3.15V POWER REG
C7559 16V10
C7560 0.01
C7561 0.01
C7563 0.01
C7558 0.01
R7557 10K
R7551 47K
R7552 47K
R7553 100K
R7554 120K
R7570 22K
C7551 0.1
C7552 .0068
C7553 0.082
C7554 0.027
C7556 0.01
R7555 10K
C7565 0.01
R7572 1K
C7555 0.01
C7569 50V1
R7571 10
C7564 50V1
R7556 1500 (1W)
C7557 50V10
PACK PIN
D7554 MA165
R7553 2200
R7569 3300
P7551 (TO TIMER)
DAC
AUDIO DEF Ⓛ
GND
BAND U
AUDIO DEF Ⓢ
BAND VL
AFC DEF
P7501 - 1
P7501 - 2
P7501 - 3
P7501 - 4
P7501 - 5
P7501 - 6
P7501 - 7
P7501 - 8
P7501 - 9
P7501 - 10
P7501 - 11
5
6
7
8
9
10
11
12
13
14
15

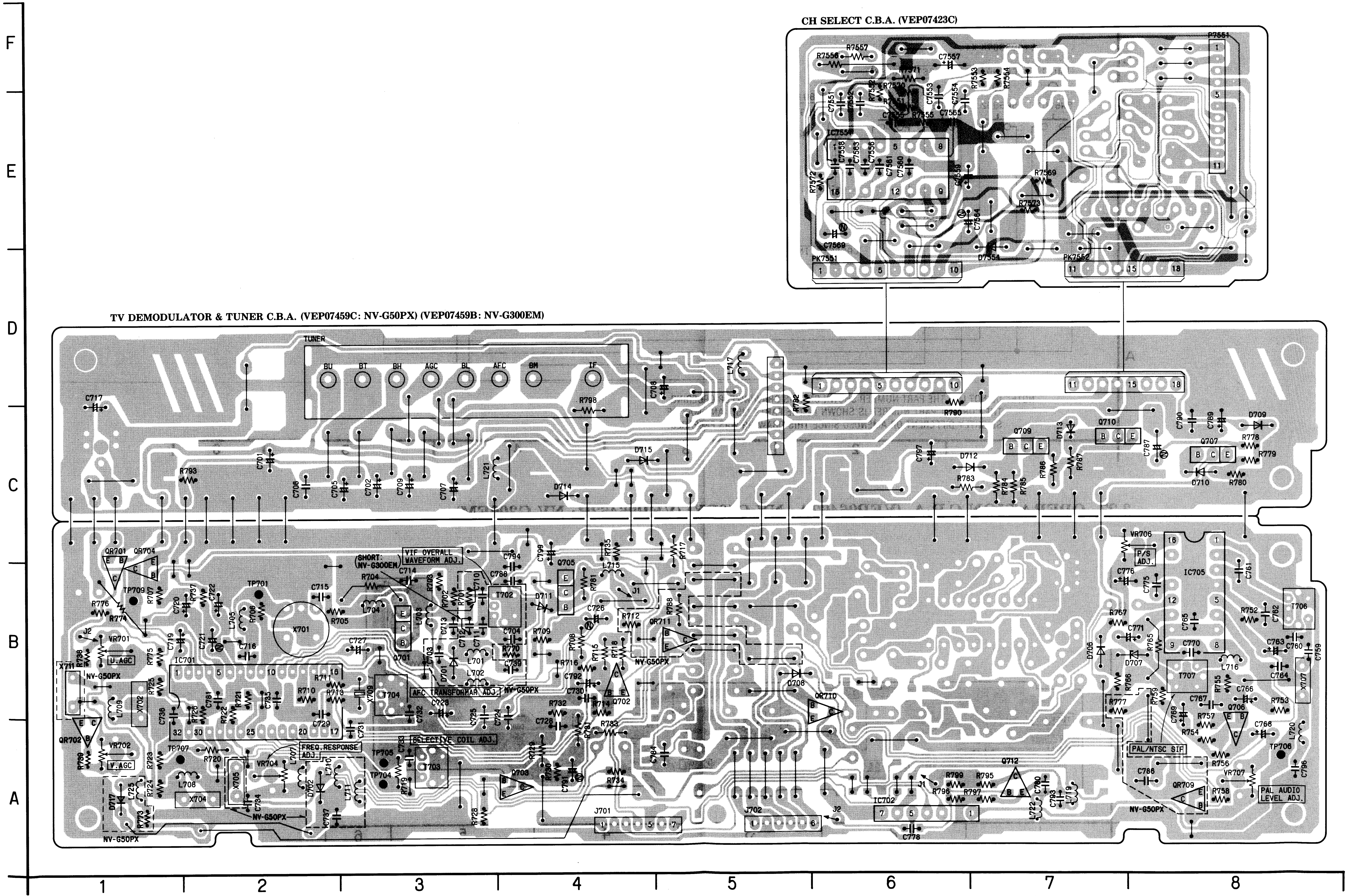
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

CH SELECT C.B.A., TV DEMODULATOR & TUNER C.B.A.	
Transistor	
Q701	B-3
Q702	B-4
Q703	A-4
Q705	B-4
Q706	B-8
Q707	C-8
Q708	B-6
Q709	C-7
Q710	C-7
Q712	A-7
Transistor & Resistor	
QR701	C-1
QR702	A-1
QR704	C-1
QR709	A-8
QR710	B-6
QR711	B-5
Integrated Circuit	
IC701	B-2
IC702	A-6
IC705	B-8
IC7551	E-6
Test Point	
TP701	B-2
TP704	A-3
TP705	A-3
TP706	A-8
TP707	A-1
TP709	B-1
Adjustment	
T702	B-4
T703	A-3
T704	B-3
T707	B-8
VR701	B-1
VR702	A-1
VR704	A-2
VR706	C-8
VR707	A-8
Connector	
J701	A-4
J702	A-5
P7551	F-8
PK7551	D-6
PK7552	D-7

ADDRESS INFORMATION

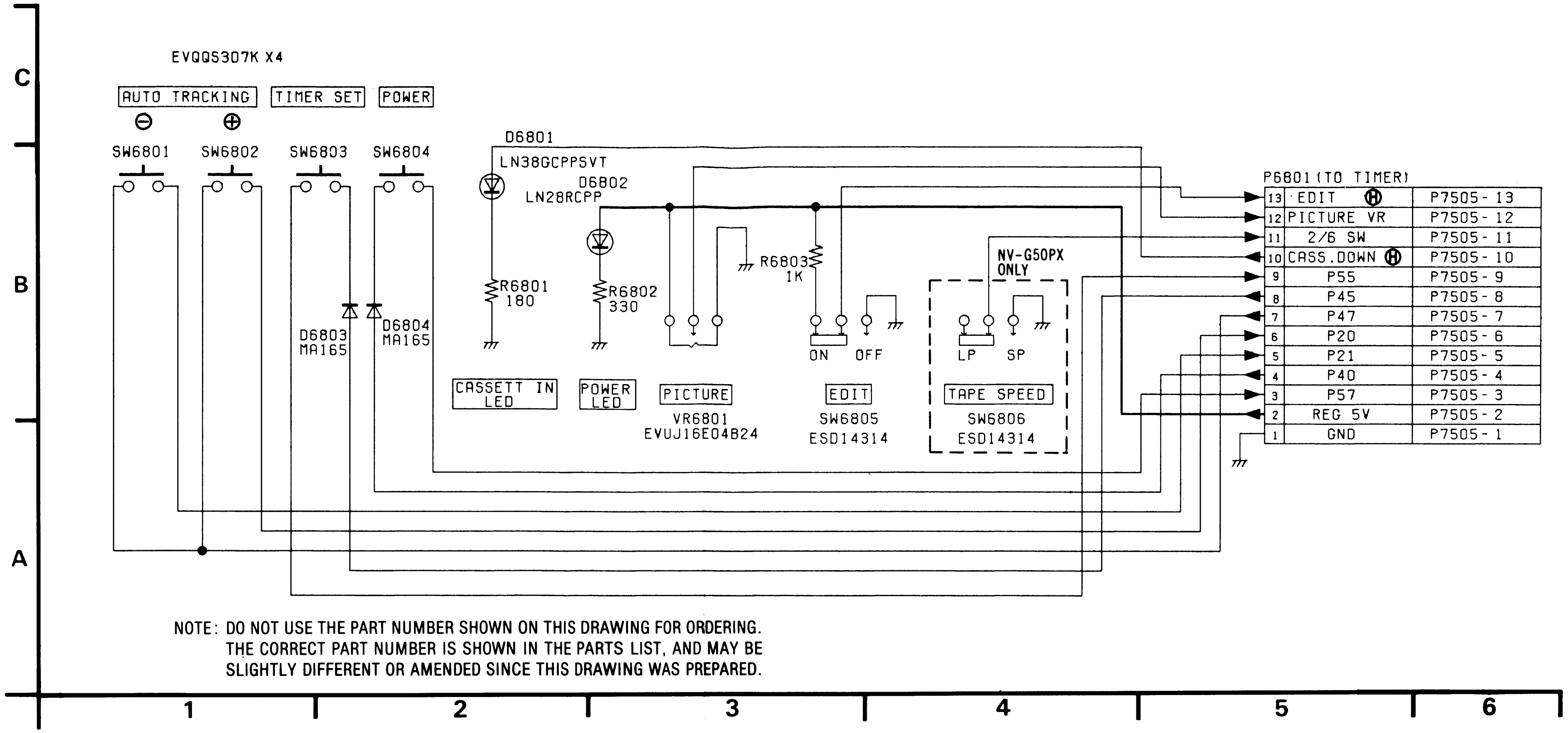
3-25. CH SELECT C.B.A. (VEP07423C), TV DEMODULATOR & TUNER C.B.A. (VEP07459C: NV-G50PX) (VEP07459B: NV-G300EM)


CH SELECT C.B.A. (VEP07423C)

TV DEMODULATOR & TUNER C.B.A. (VEP07459C: NV-G50PX) (VEP07459B: NV-G300EM)

F
E
D
C
B
A
1
2
3
4
5
6
7
8
TUNER
BU
BT
BH
AGC
BL
AFC
BM
IF
P7551
PK7551
PK7552
IC7551
D7554
IC701
IC702
IC705
X701
T702
T703
T704
T706
T707
J701
J702
TP701
TP704
TP705
TP706
TP707
TP709
(SHORT: NV-G300EM)
VIF OVERALL WAVEFORM ADJ.
AFC TRANSFORMAR ADJ.
SELECTIVE COIL ADJ.
FREQ. RESPONSE ADJ.
U.AGC
V.AGC
P/S ADJ.
PAL/NTSC SIF
PAL AUDIO LEVEL ADJ.
NV-G50PX

3-26. OPERATION SCHEMATIC DIAGRAM

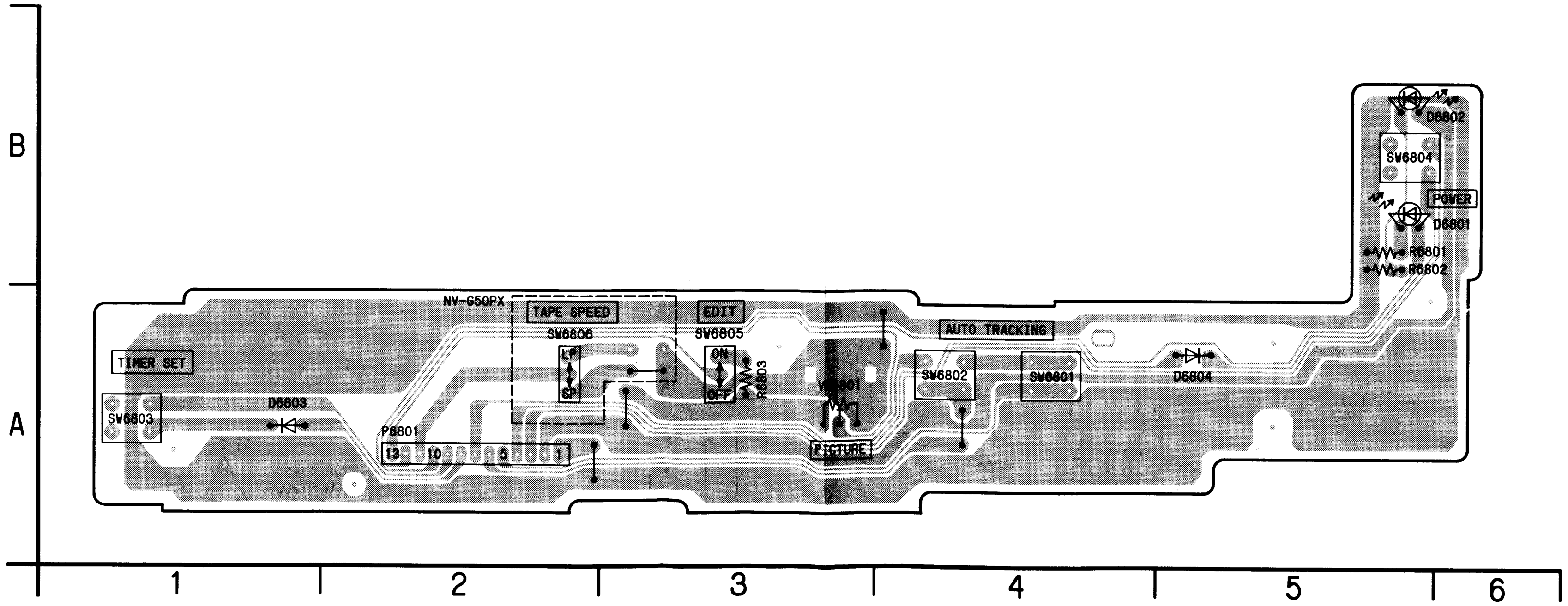

C
B
A
EVQQS307K X4
AUTO TRACKING
⊖
⊕
TIMER SET
POWER
SW6801
SW6802
SW6803
SW6804
D6803
MA165
D6804
MA165
D6801
LN38GCPPSVT
D6802
LN28RCPP
R6801
180
R6802
330
R6803
1K
CASSETT IN LED
POWER LED
PICTURE
VR6801
EVUJ16E04B24
EDIT
ON
OFF
SW6805
ESD14314
NV-G50PX ONLY
LP
SP
TAPE SPEED
SW6806
ESD14314
P6801 (TO TIMER)
1
2
3
4
5
6

P6801 (TO TIMER)

13	EDIT Ⓗ	P7505 - 13
12	PICTURE VR	P7505 - 12
11	2/6 SW	P7505 - 11
10	CASS.DOWN Ⓗ	P7505 - 10
9	P55	P7505 - 9
8	P45	P7505 - 8
7	P47	P7505 - 7
6	P20	P7505 - 6
5	P21	P7505 - 5
4	P40	P7505 - 4
3	P57	P7505 - 3
2	REG 5V	P7505 - 2
1	GND	P7505 - 1

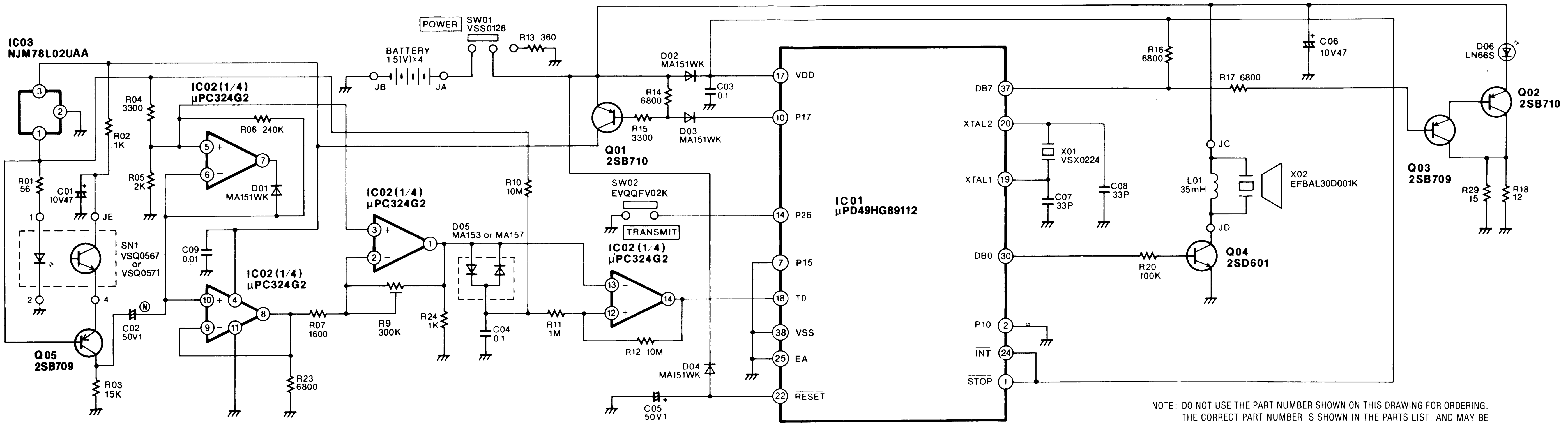
NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

3-27. OPERATION C.B.A. (VEP06462A: NV-G50PX) (VEP06462B: NV-G300EM)


B
A
TIMER SET
SW6803
D6803
P6801
13
10
5
1
NV-G50PX
TAPE SPEED
SW6806
LP
SP
EDIT
SW6805
ON
OFF
R6803
VR6801
PICTURE
AUTO TRACKING
SW6802
SW6801
D6804
D6802
SW6804
POWER
D6801
R6801
R6802
1
2
3
4
5
6

Back Page:
CH SELECT, TV DEMODULATOR
& TUNER Section

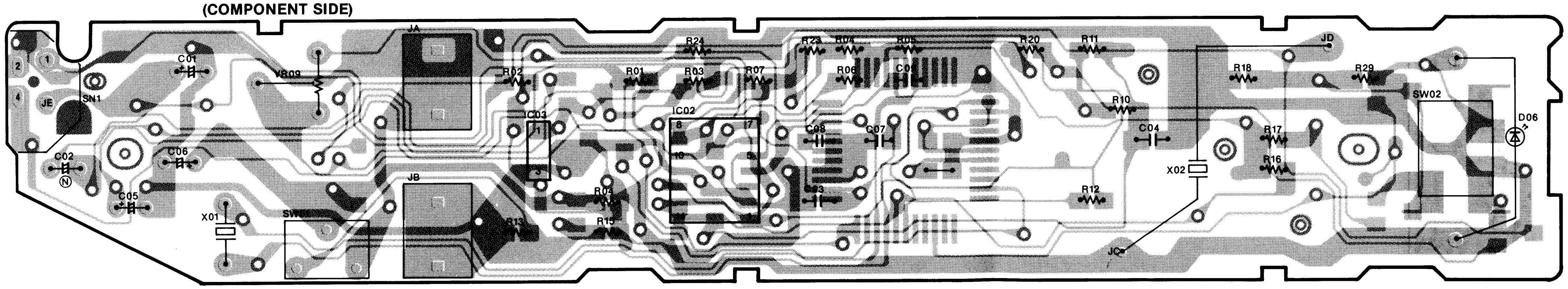
3-28. DIGITAL SCANNER SCHEMATIC DIAGRAM
— UNIT NO.: VEQ0688 (NV-G50PX), VEQ0653 (NV-G300EM) —


IC03
NJM78L02UAA
R01
56
C01
10V47
JE
SN1
VSQ0567
or
VSQ0571
Q05
2SB709
R03
15K
R02
1K
C02
50V1
Ⓝ
R04
3300
R05
2K
IC02(1/4)
μPC324G2
R06 240K
D01
MA151WK
C09
0.01
R07
1600
R23
6800
R9
300K
R24
1K
D05
MA153 or MA157
C04
0.1
R10
10M
R11
1M
R12 10M
POWER
SW01
VSS0126
BATTERY
1.5(V)×4
JB
JA
R13 360
Q01
2SB710
R14
6800
R15
3300
D02
MA151WK
D03
MA151WK
C03
0.1
SW02
EVQQFV02K
TRANSMIT
D04
MA151WK
C05
50V1
IC01
μPD49HG89112
VDD
P17
P26
P15
T0
VSS
EA
RESET
DB7
XTAL 2
XTAL 1
DB0
P10
INT
STOP
X01
VSX0224
C07
33P
C08
33P
R16
6800
R17 6800
C06
10V47
JC
JD
L01
35mH
X02
EFBAL30D001K
R20
100K
Q04
2SD601
D06
LN66S
Q02
2SB710
Q03
2SB709
R29
15
R18
12

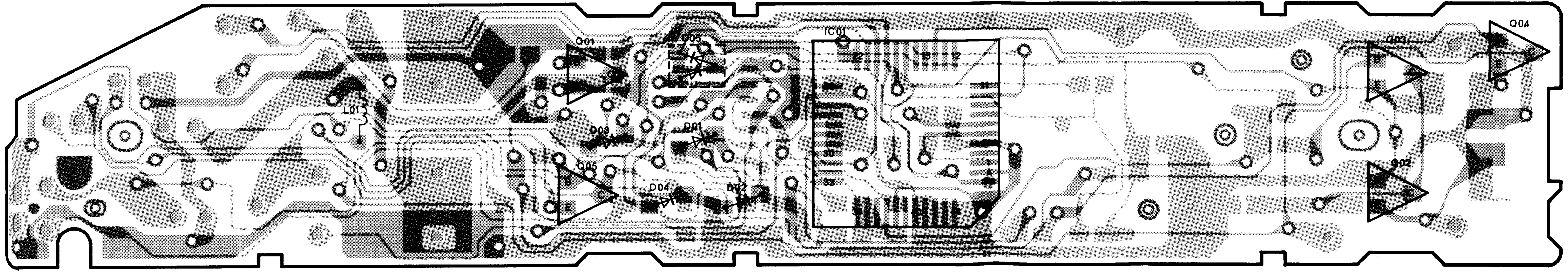
NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

3-29. DIGITAL SCANNER C.B.A. (VEP66033C)

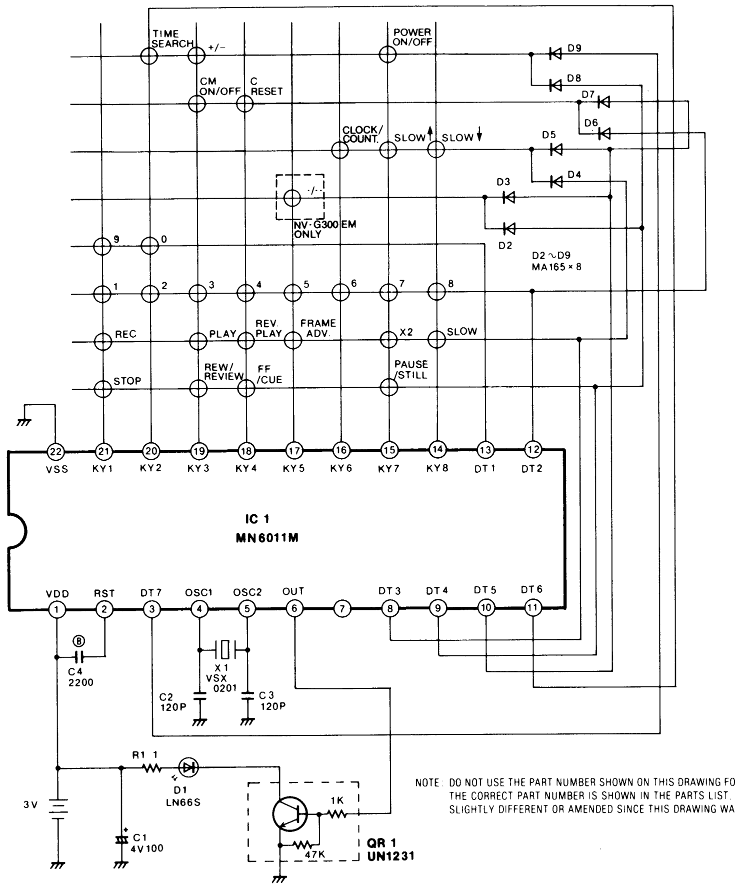
(COMPONENT SIDE)


JA
JB
C01
SN1
JE
C02
Ⓝ
C06
C05
X01
SW01
R24
R02
R01
R03
R07
IC02
C03
R13
R15
R23
R04
R05
R06
C09
C08
C07
R20
R11
R10
C04
R12
X02
JC
JD
R18
R29
R17
R16
SW02
D06

(FOIL SIDE)

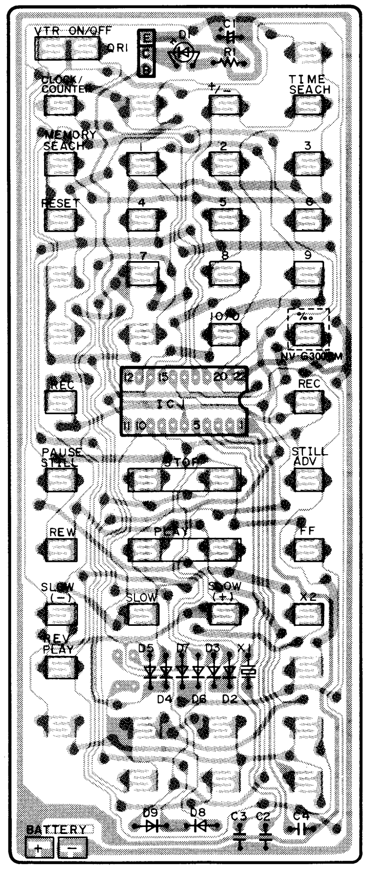

Q01
D05
IC01
Q03
Q04
L01
D03
D01
Q05
D04
D02
Q02
B
C
E

3-30. REMOTE CONTROLLER SCHEMATIC DIAGRAM
—UNIT NO.: VEQ0789 (NV-G50PX), VEQ0701 (NV-G300EM)—


TIME SEARCH
+/-
POWER ON/OFF
CM ON/OFF
C RESET
CLOCK/COUNT
SLOW
NV-G300EM ONLY
D2~D9
MA165×8
REC
PLAY
REV. PLAY
FRAME ADV.
X2
SLOW
STOP
REW/REVIEW
FF /CUE
PAUSE /STILL
VSS
KY1
KY2
KY3
KY4
KY5
KY6
KY7
KY8
DT1
DT2
IC 1
MN6011M
VDD
RST
DT7
OSC1
OSC2
OUT
DT3
DT4
DT5
DT6
C4
2200
C2
120P
X1
VSX
0201
C3
120P
R1 1
D1
LN66S
3V
C1
4V100
1K
47K
QR 1
UN1231

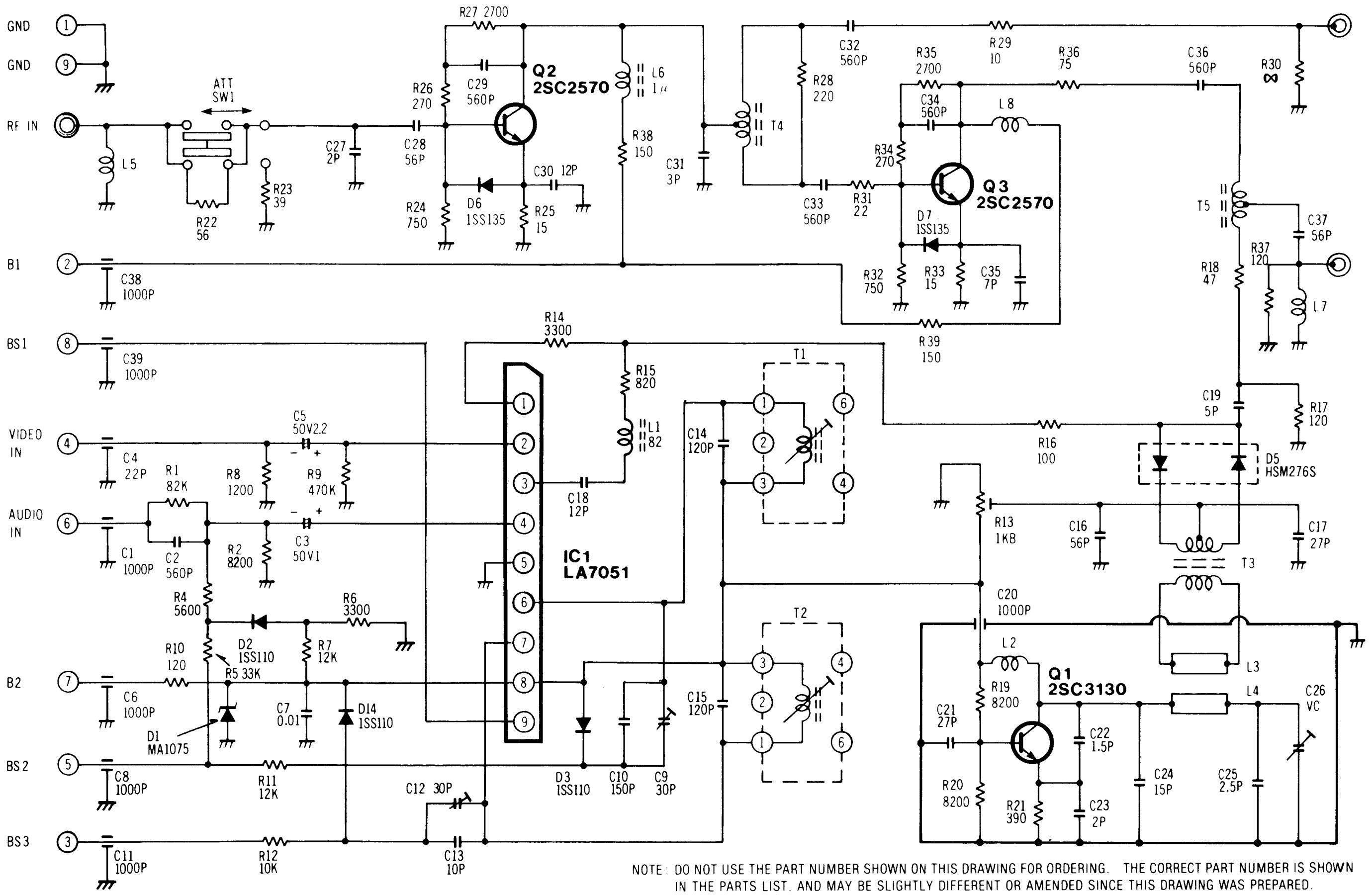
NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST. AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED

3-31. REMOTE CONTROLLER C.B.A. (VEP66038A)


VTR ON/OFF
RI
TIME SEARCH
CLOCK/COUNTER
MEMORY SEACH
RESET
NV-G300EM
REC
IC
PAUSE STILL
STOP
STILL ADV
REW
PLAY
FF
SLOW (−)
SLOW
SLOW (+)
X2
REV PLAY
D5
D3
D4
D8
D2
D6
C3
C2
C4
BATTERY

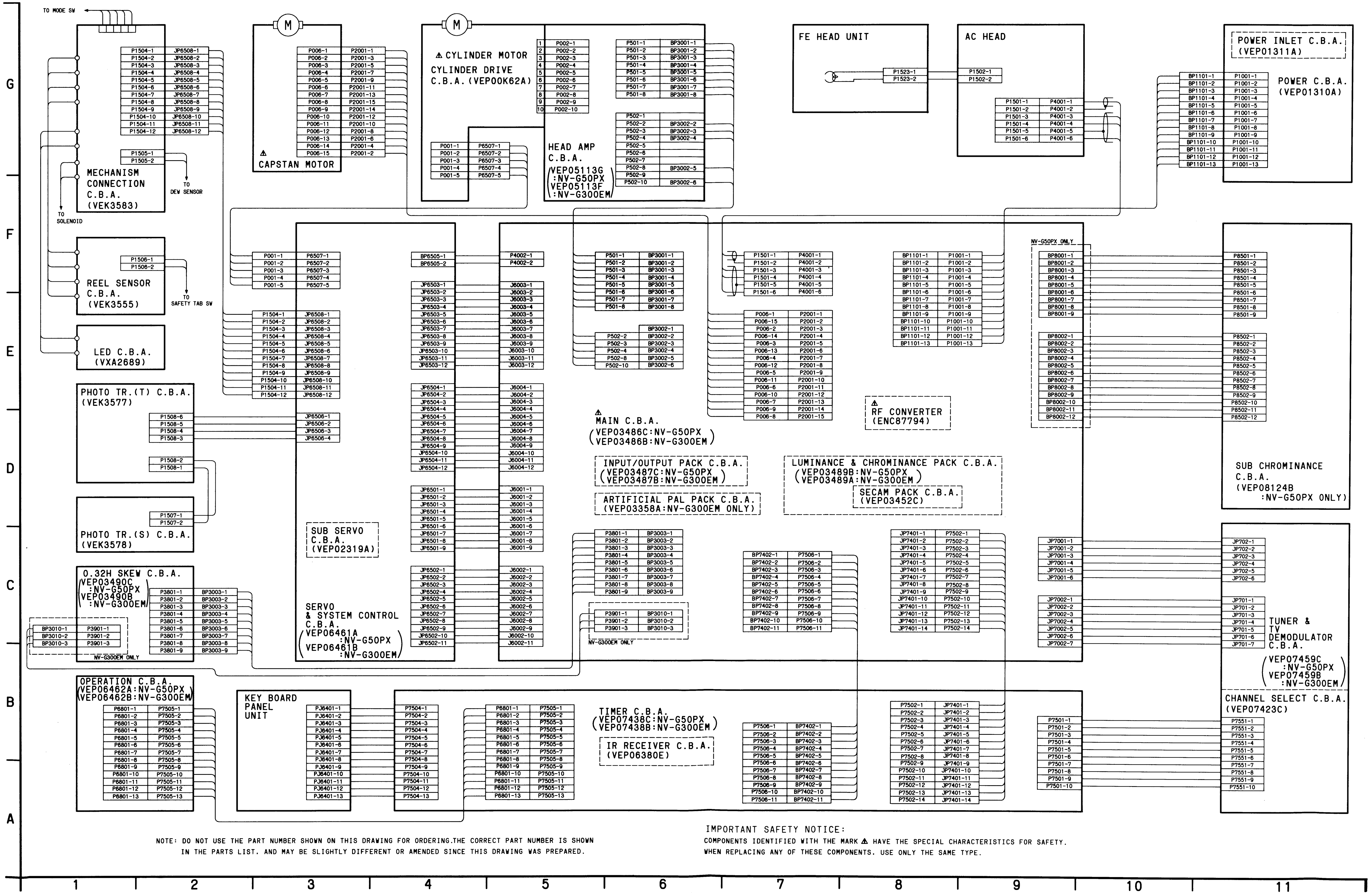
Next Page:
DIGITAL SCANNER Section

3-32. RF CONVERTER SCHEMATIC DIAGRAM (ENC87794)


GND
GND
RF IN
B1
BS1
VIDEO IN
AUDIO IN
B2
BS2
BS3
ATT SW1
L5
R22 56
R23 39
C27 2P
C28 56P
R27 2700
R26 270
C29 560P
Q2
2SC2570
R24 750
D6 ISS135
R25 15
C30 12P
L6
R38 150
C31 3P
T4
C32 560P
R28 220
R35 2700
R29 10
R36 75
C36 560P
R30 ∞
VTR OUT
C34 560P
L8
R34 270
Q3
2SC2570
C33 560P
R31 22
D7 ISS135
R32 750
R33 15
C35 7P
R39 150
T5
C37 56P
R37 120
R18 47
L7
RF OUT
C38 1000P
C39 1000P
R14 3300
R15 820
L1 82
T1
C14 120P
C19 5P
R17 120
R16 100
D5 HSM276S
C4 22P
R1 82K
R8 1200
C5 50V2.2
R9 470K
C18 12P
IC1
LA7051
C1 1000P
C2 560P
R2 8200
C3 50V1
R13 1K8
C16 56P
C17 27P
T3
R4 5600
R6 3300
C20 1000P
R10 120
D2 ISS110
R5 33K
R7 12K
T2
L2
Q1
2SC3130
L3
C6 1000P
D1 MA1075
C7 0.01
D14 ISS110
C15 120P
R19 8200
C21 27P
C22 1.5P
L4
C26 VC
C8 1000P
R11 12K
C12 30P
D3 ISS110
C10 150P
C9 30P
R20 8200
R21 390
C23 2P
C24 15P
C25 2.5P
C11 1000P
R12 10K
C13 10P

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST. AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

3-33. INTERCONNECTION SCHEMATIC DIAGRAM

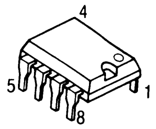

TO MODE SW
MECHANISM CONNECTION C.B.A. (VEK3583)
TO DEW SENSOR
TO SOLENOID
REEL SENSOR C.B.A. (VEK3555)
TO SAFETY TAB SW
LED C.B.A. (VXA2689)
PHOTO TR.(T) C.B.A. (VEK3577)
PHOTO TR.(S) C.B.A. (VEK3578)
0.32H SKEW C.B.A. (VEP03490C :NV-G50PX VEP03490B :NV-G300EM)
NV-G300EM ONLY
OPERATION C.B.A. (VEP06462A:NV-G50PX VEP06462B:NV-G300EM)
⚠ CAPSTAN MOTOR
⚠ CYLINDER MOTOR
CYLINDER DRIVE C.B.A. (VEP00K62A)
HEAD AMP C.B.A. (VEP05113G :NV-G50PX VEP05113F :NV-G300EM)
FE HEAD UNIT
AC HEAD
POWER INLET C.B.A. (VEP01311A)
POWER C.B.A. (VEP01310A)
SUB SERVO C.B.A. (VEP02319A)
SERVO & SYSTEM CONTROL C.B.A. (VEP06461A :NV-G50PX VEP06461B :NV-G300EM)
⚠ MAIN C.B.A. (VEP03486C:NV-G50PX VEP03486B:NV-G300EM)
INPUT/OUTPUT PACK C.B.A. (VEP03487C:NV-G50PX VEP03487B:NV-G300EM)
ARTIFICIAL PAL PACK C.B.A. (VEP03358A:NV-G300EM ONLY)
LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03489B:NV-G50PX VEP03489A:NV-G300EM)
SECAM PACK C.B.A. (VEP03452C)
⚠ RF CONVERTER (ENC87794)
NV-G50PX ONLY
SUB CHROMINANCE C.B.A. (VEP08124B :NV-G50PX ONLY)
TUNER & TV DEMODULATOR C.B.A. (VEP07459C :NV-G50PX VEP07459B :NV-G300EM)
CHANNEL SELECT C.B.A. (VEP07423C)
KEY BOARD PANEL UNIT
TIMER C.B.A. (VEP07438C:NV-G50PX VEP07438B:NV-G300EM)
IR RECEIVER C.B.A. (VEP06380E)
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING.THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST. AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

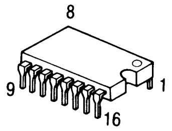
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS. USE ONLY THE SAME TYPE.

3-34. aCs & TRs INFORMATION

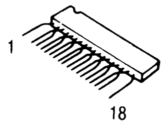
GENERAL CIRCUIT PARTS



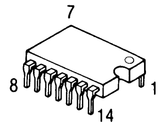
AN6562
AN6914



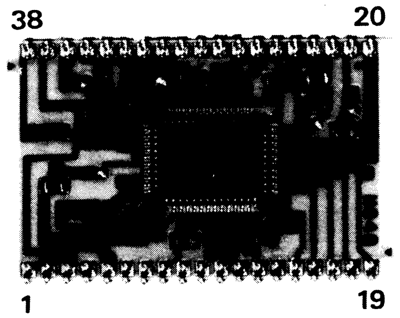
AN5043
TDA1048G
TL8705P
µPC1167C2
µPD4053BC



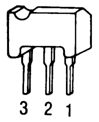
BA7025L



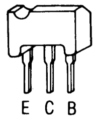
MN74HC08N
µPD4013BC



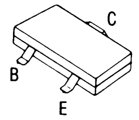
VEFH04A
VEFH04B



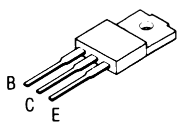
MN1220
MN1280
MN1280P
MN1280R



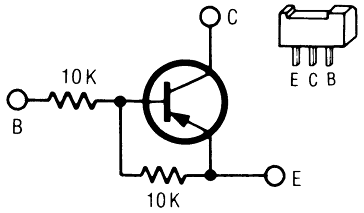
2SA1547
2SB641
2SB643
2SC2188
2SC2206
2SD1330
2SD636
2SD638
2SD973



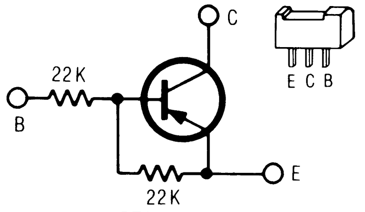
2SB709
2SC2295
2SC2404
2SD601



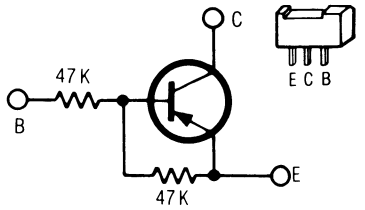
2SD1273P
2SD1275


C
E C B
10K
B
10K
E

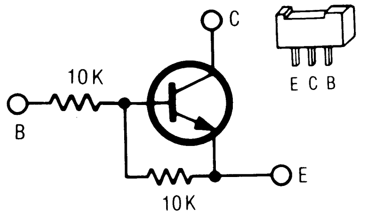
DTA114EA
UN1111


C
E C B
22K
B
22K
E

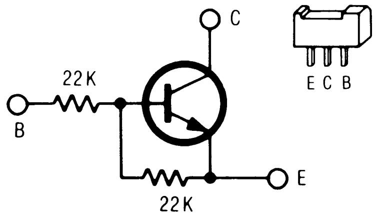
DTA124EA
UN1112


C
E C B
47K
B
47K
E

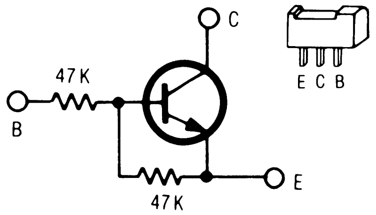
DTA144EA
UN1113


C
E C B
10K
B
10K
E

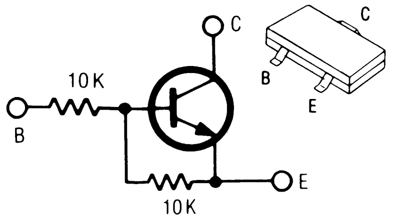
DTC114EA
UN1211


C
E C B
22K
B
22K
E

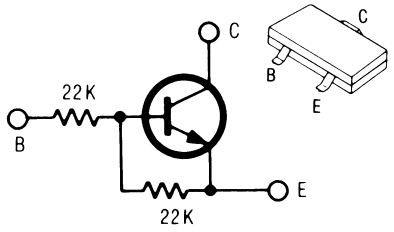
DTC124EA
UN1212


C
E C B
47K
B
47K
E

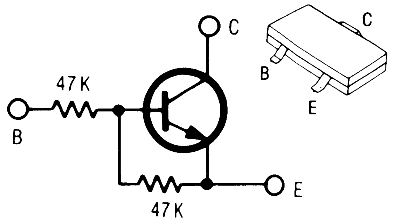
DTC144EA
UN1213


C
C
B
E
10K
B
E
10K

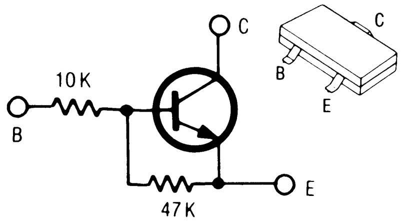
UN2211


C
C
B
E
22K
B
E
22K

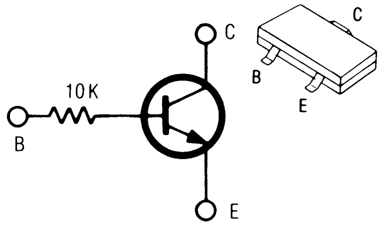
UN2212


C
C
B
E
47K
B
E
47K

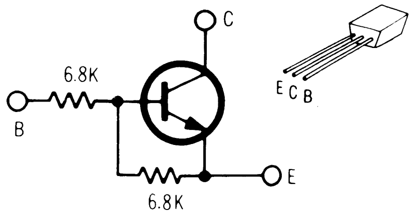
UN2213


C
C
B
E
10K
B
E
47K

UN2214



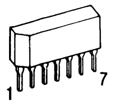
UN2215


C
6.8K
B
E C B
E
6.8K

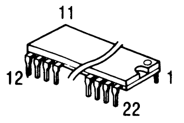
2SD1676

Back Page:
INTERCONNECTION Section

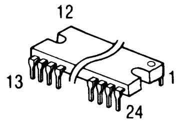
MAIN



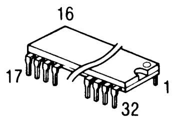
AN3396



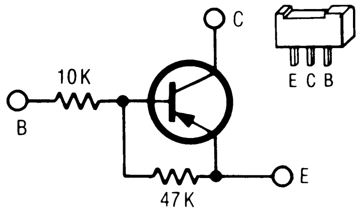
BU3761S



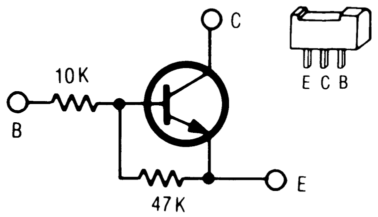
BA6432S



BA7766S

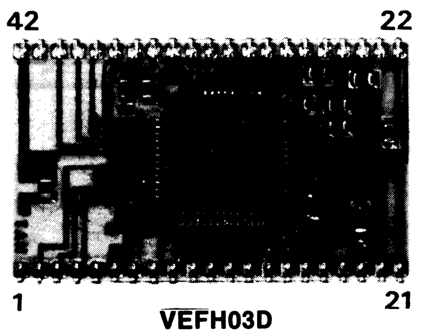

C
E C B
10K
B
E
47K

DTA114YA
UN1114

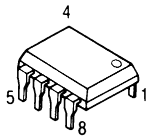

C
E C B
10K
B
E
47K

DTC114YA
UN1214

LUMINANCE & CHROMINANCE PACK

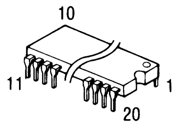


VEFH03D

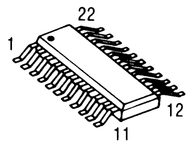


MSM6965-3RS

HEAD AMP

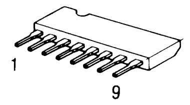


AN3224K



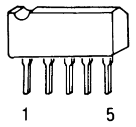
AN3311S

0.32H SKEW



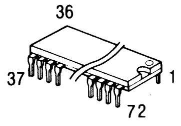
BA7021
AN5753

INPUT/OUTPUT PACK

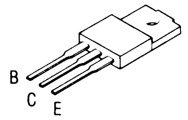


BA7004

SERVO & SYSTEM CONTROL

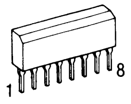


MN6740VCZK



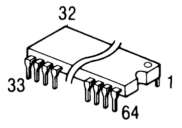
2SD983

IR RECEIVER

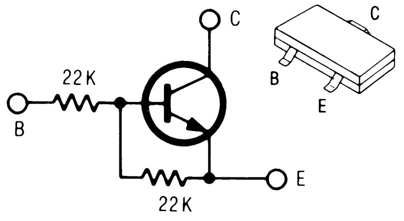


µPC1490HA

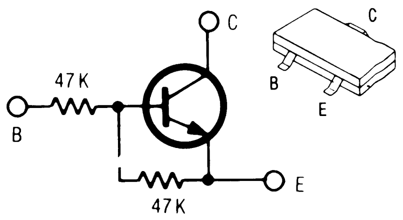
TIMER



M50935V4AB

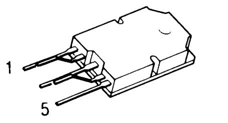

C
C
B
E
22K
B
E
22K

UN2212

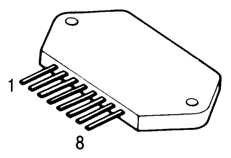

C
C
B
E
47K
B
E
47K

UN2213

POWER SUPPLY

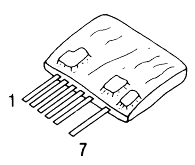


STRD1806E

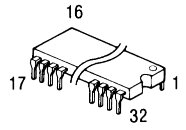


STK5339B

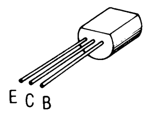
TV DEMODULATOR



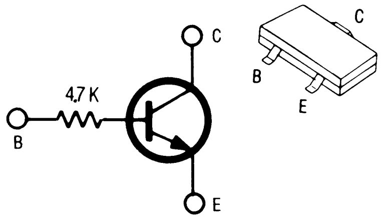
H8D1742A



M51419SP



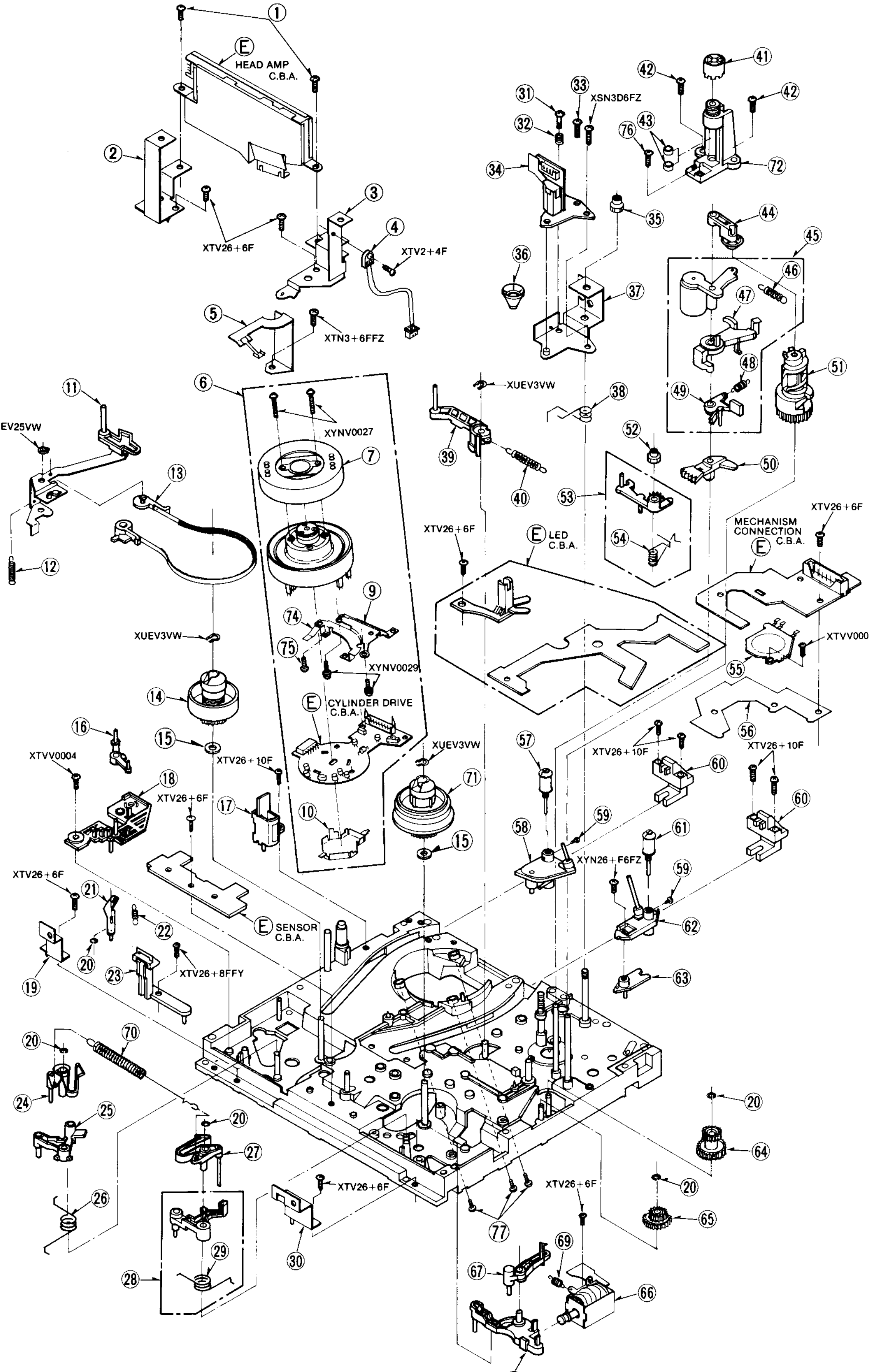
2SC1047



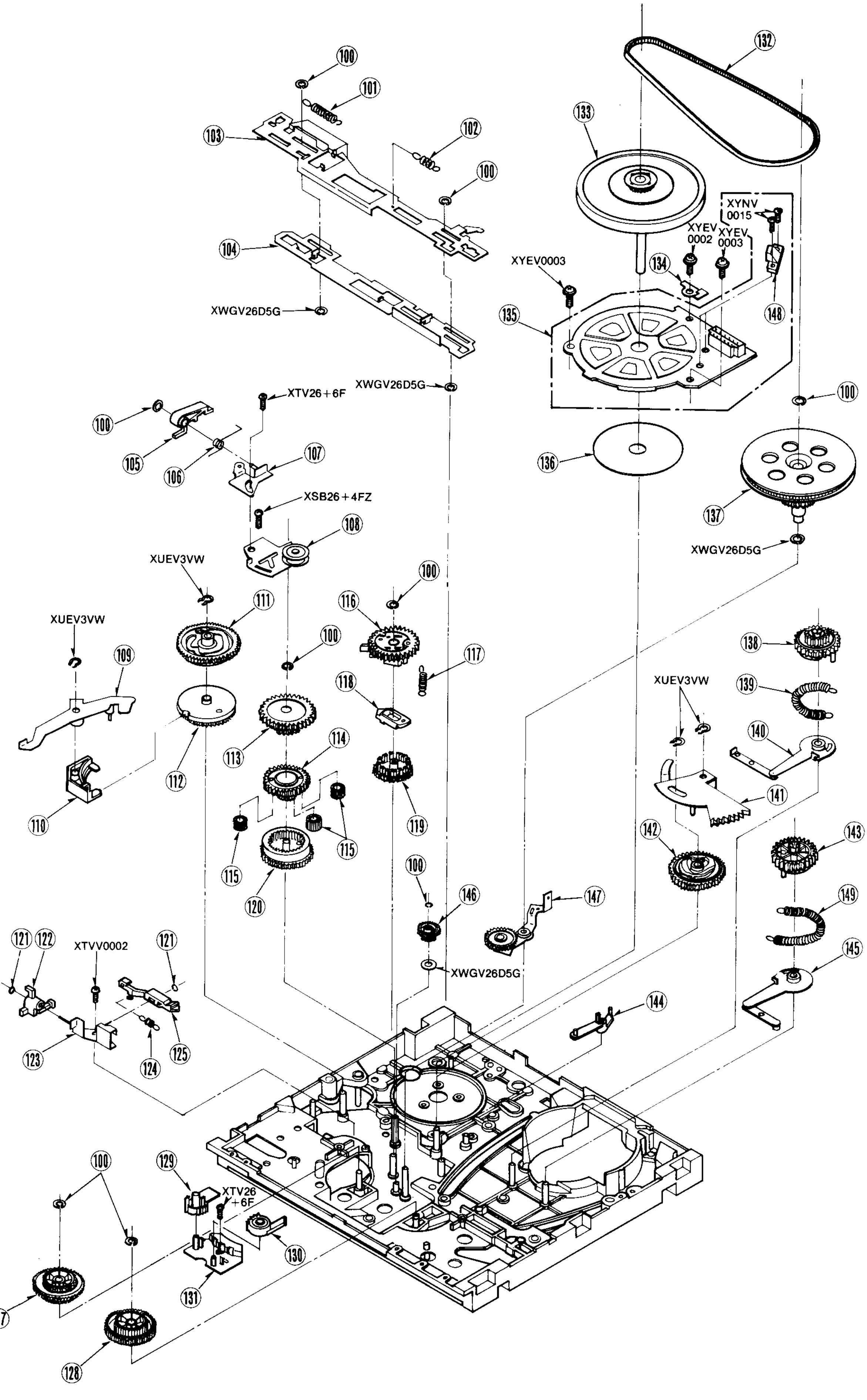
UN2216

SECTION 4
EXPLODED VIEWS & PARTS LIST

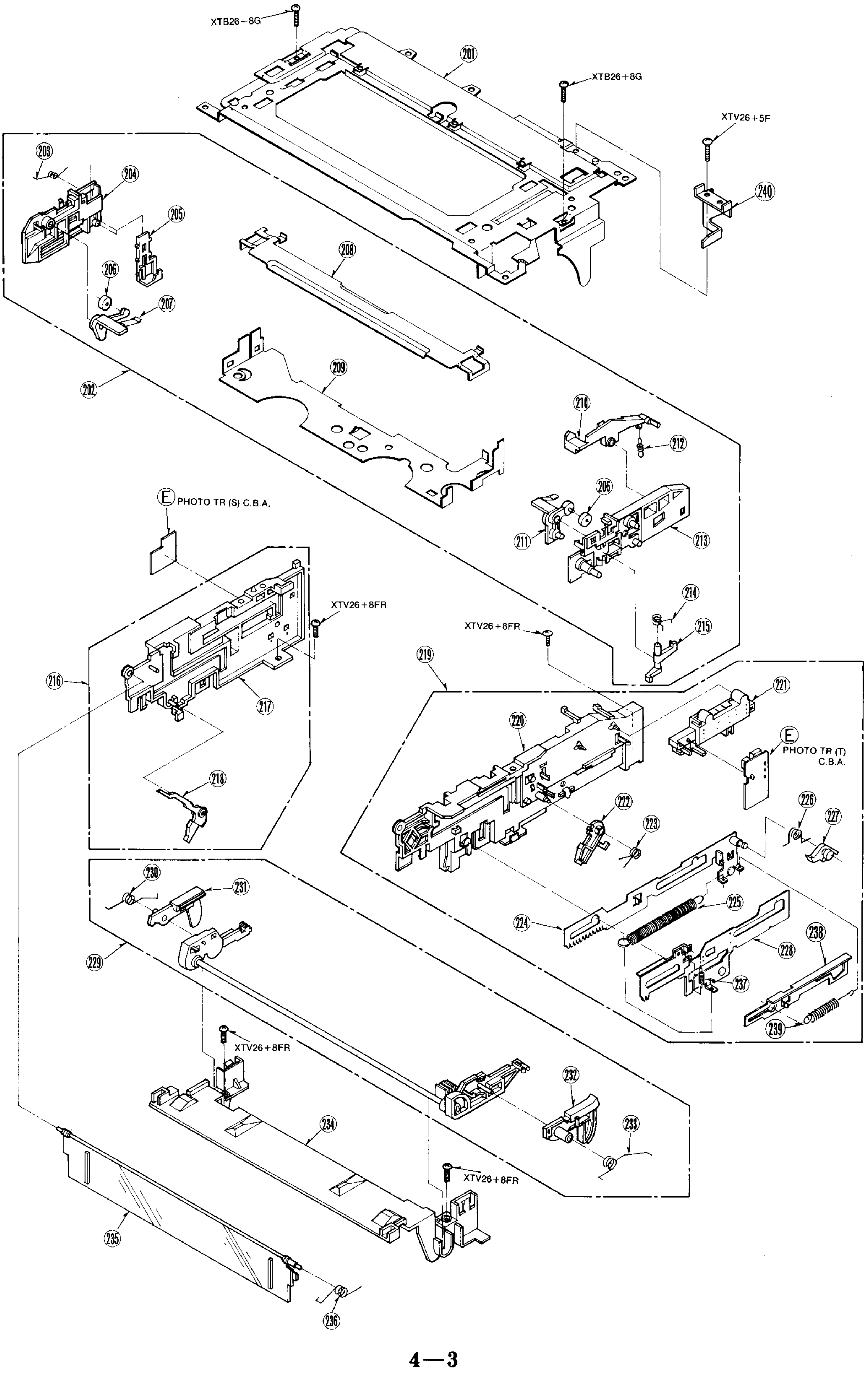
4-1. EXPLODED VIEW ❶ CHASSIS PARTS SECTION (1)


①
Ⓔ
HEAD AMP
C.B.A.
②
③
④
XTV26+6F
XTV2+4F
⑤
XTN3+6FFZ
⑥
XYNV0027
⑦
⑪
XUEV25VW
⑫
⑬
XUEV3VW
⑨
㉔
⑦4
⑦5
XYNV0029
Ⓔ CYLINDER DRIVE
C.B.A.
⑭
⑮
⑯
XTVV0004
⑱
XTV26+6F
XTV26+10F
⑰
⑩
XUEV3VW
⑦1
⑮
XTV26+6F
㉑
㉒
⑳
⑲
㉓
XTV26+8FFY
Ⓔ SENSOR
C.B.A.
⑳
㉔
㉕
⑦0
⑳
㉗
㉖
㉘
㉙
XTV26+6F
㉚
㊶
㊷
㊷
㉛
㉝
XSN3D6FZ
㉜
⑦6
㊸
⑦2
㉞
㉟
㊱
㊲
㊹
㊺
㊻
㊼
㊽
㊾
(51)
XUEV3VW
㊳
㊴
㊵
㊿
(52)
(53)
(54)
XTV26+6F
Ⓔ LED
C.B.A.
MECHANISM
CONNECTION
Ⓔ C.B.A.
XTV26+6F
XTVV0002
(55)
(56)
(57)
XTV26+10F
(60)
XTV26+10F
(60)
(58)
(59)
XYN26+F6FZ
(61)
(59)
(62)
(63)
⑳
(64)
⑳
(65)
XTV26+6F
(77)
(69)
(67)
(66)
(68)

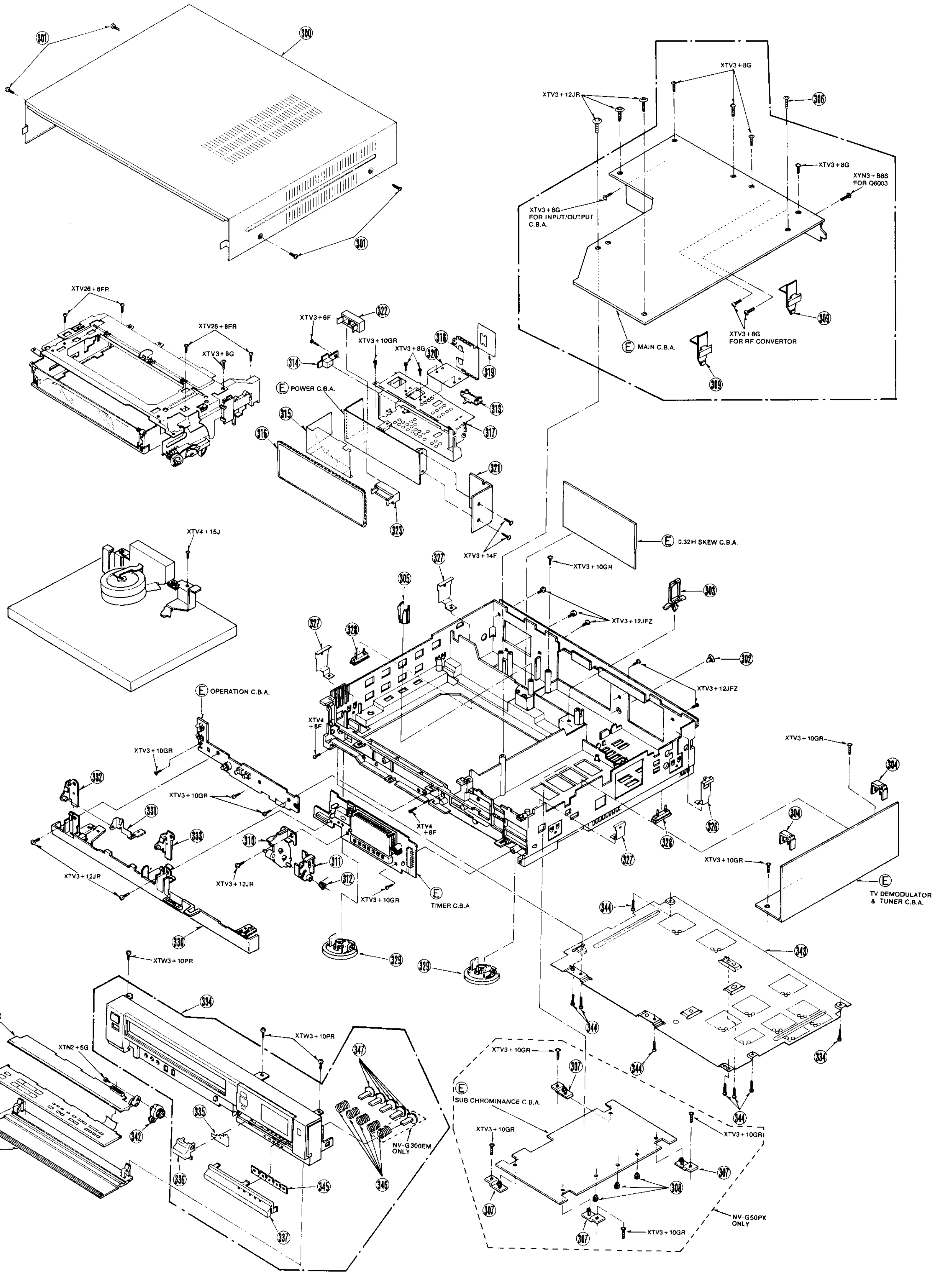
❷ CHASSIS PARTS SECTION (2)


132
100
101
133
102
103
100
XYNV
0015
XYEV
0002
XYEV
0003
104
XYEV0003
134
XWGV26D5G
135
148
XWGV26D5G
100
XTV26+6F
100
105
106
107
136
137
XSB26+4FZ
108
XWGV26D5G
XUEV3VW
111
100
116
XUEV3VW
100
109
117
138
118
XUEV3VW
139
113
114
140
112
119
141
110
115
115
142
143
115
120
100
146
147
149
121
122
XTVV0002
121
145
XWGV26D5G
144
123
124
125
100
129
XTV26
+6F
130
131
127
128

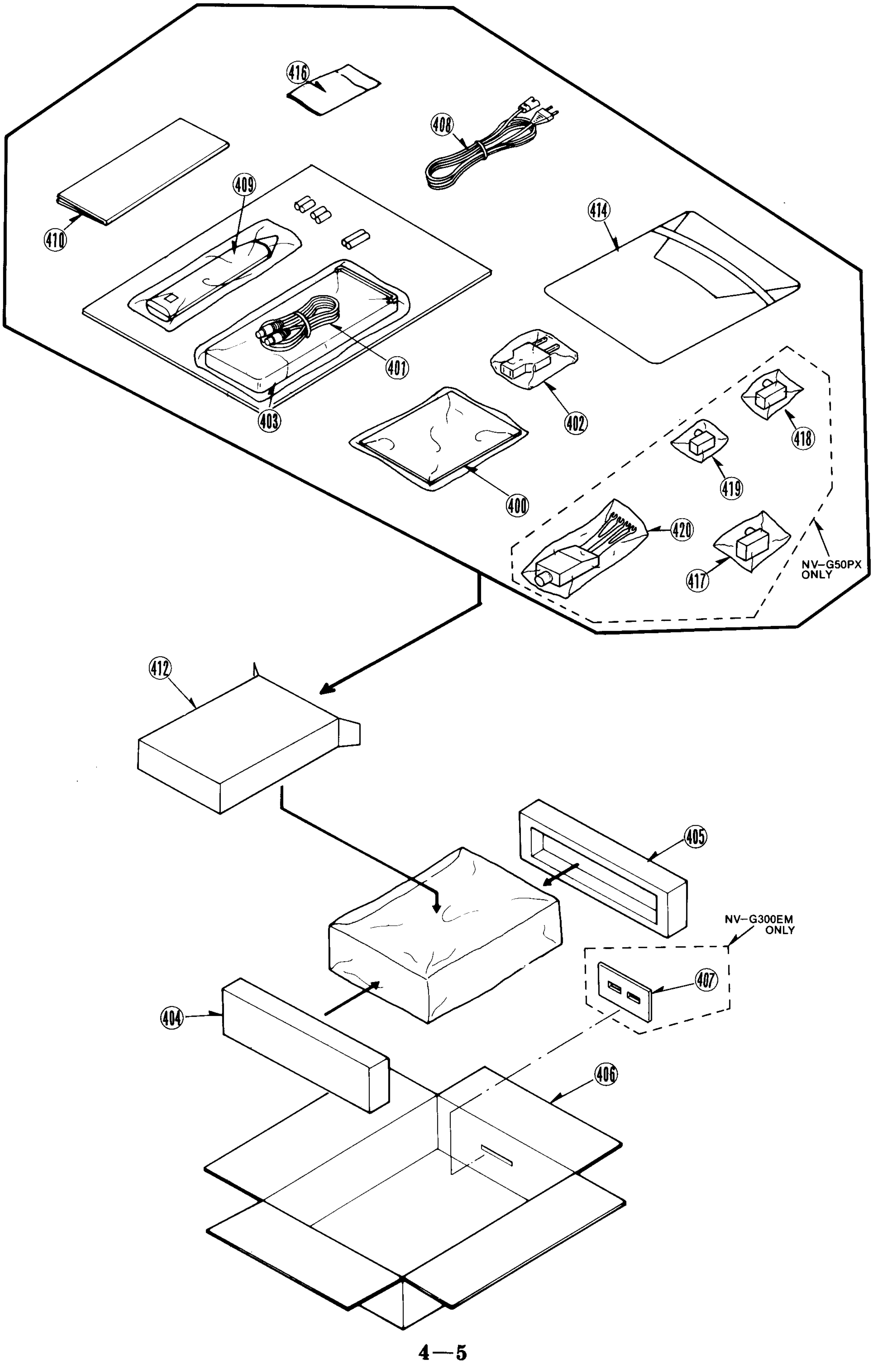
❸ CASSETTE UP MECHANISM SECTION


XTB26+8G
201
XTB26+8G
XTV26+5F
240
203
204
205
206
207
208
202
209
210
212
206
211
213
214
215
E PHOTO TR (S) C.B.A.
XTV26+8FR
XTV26+8FR
216
217
219
221
220
E PHOTO TR (T) C.B.A.
218
222
223
226
227
224
225
228
238
237
239
230
231
229
XTV26+8FR
232
233
234
XTV26+8FR
235
236

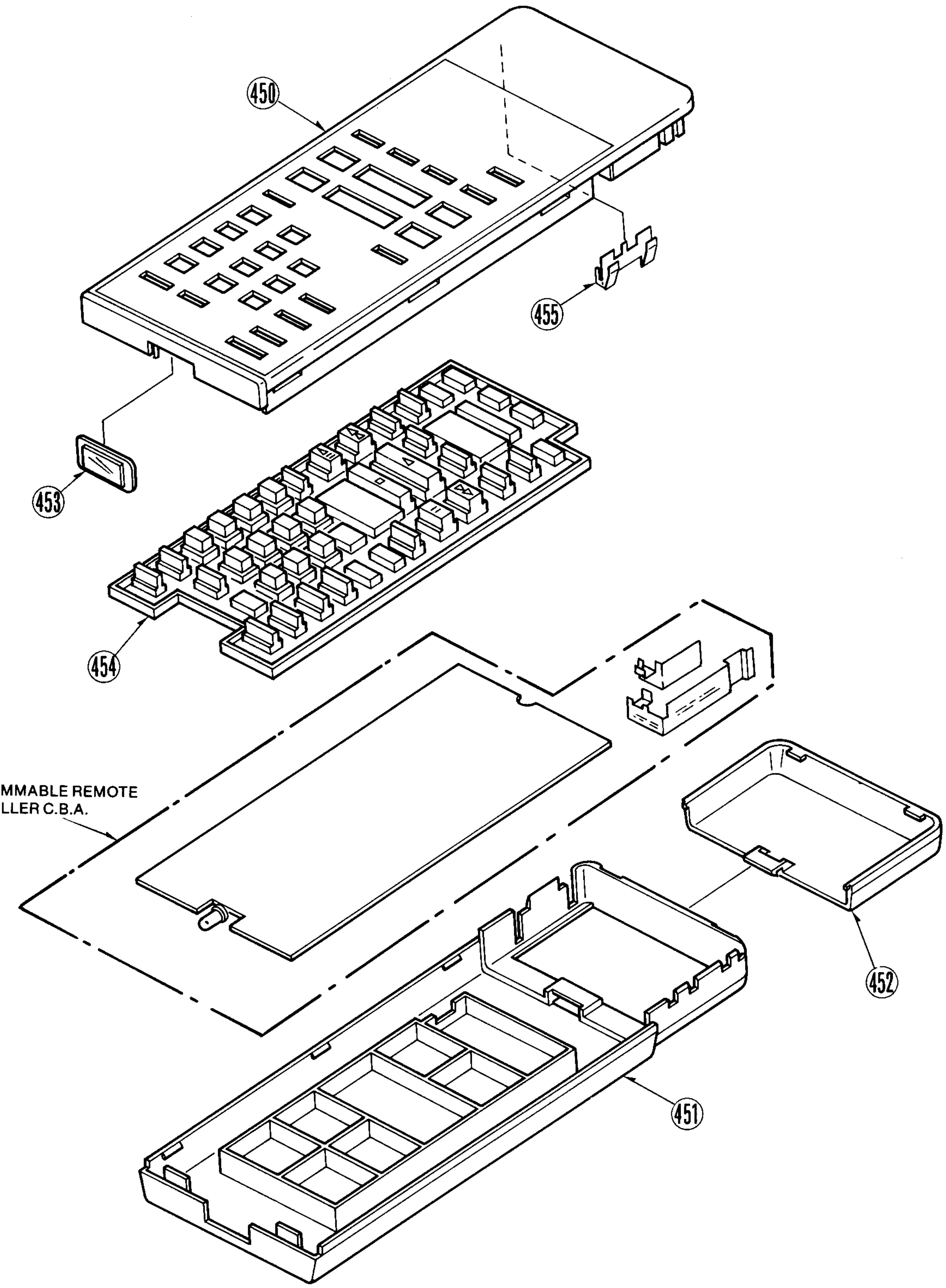
❹ CASING PARTS SECTIN


301
300
301
XTV3 + 8G
XTV3 + 12JR
306
XTV3 + 8G
XYN3 + B8S
FOR Q6003
XTV3 + 8G
FOR INPUT/OUTPUT
C.B.A.
E MAIN C.B.A.
XTV3 + 8G
FOR RF CONVERTOR
309
309
XTV26 + 8FR
XTV26 + 8FR
XTV3 + 8G
XTV3 + 6F
322
314
XTV3 + 10GR
XTV3 + 8G
318
320
319
313
317
E POWER C.B.A.
315
316
321
323
XTV3 + 14F
E 0.32H SKEW C.B.A.
XTV4 + 15J
XTV3 + 10GR
327
305
303
327
328
XTV3 + 12JFZ
302
XTV3 + 12JFZ
E OPERATION C.B.A.
XTV4
+8F
XTV3 + 10GR
332
XTV3 + 10GR
331
333
XTV3 + 12JR
310
311
312
XTV3 + 12JR
XTV3 + 10GR
XTV4
+8F
E
TIMER C.B.A.
326
328
327
XTV3 + 10GR
304
304
XTV3 + 10GR
E
TV DEMODULATOR
& TUNER C.B.A.
330
329
329
344
343
XTW3 + 10PR
334
341
XTW3 + 10PR
347
339
XTN2 + 5G
340
342
338
335
336
NV-G300EM
ONLY
346
345
337
344
344
334
XTV3 + 10GR
307
E
SUB CHROMINANCE C.B.A.
XTV3 + 10GR
XTV3 + 10GR
307
308
307
307
XTV3 + 10GR
NV-G50PX
ONLY
344

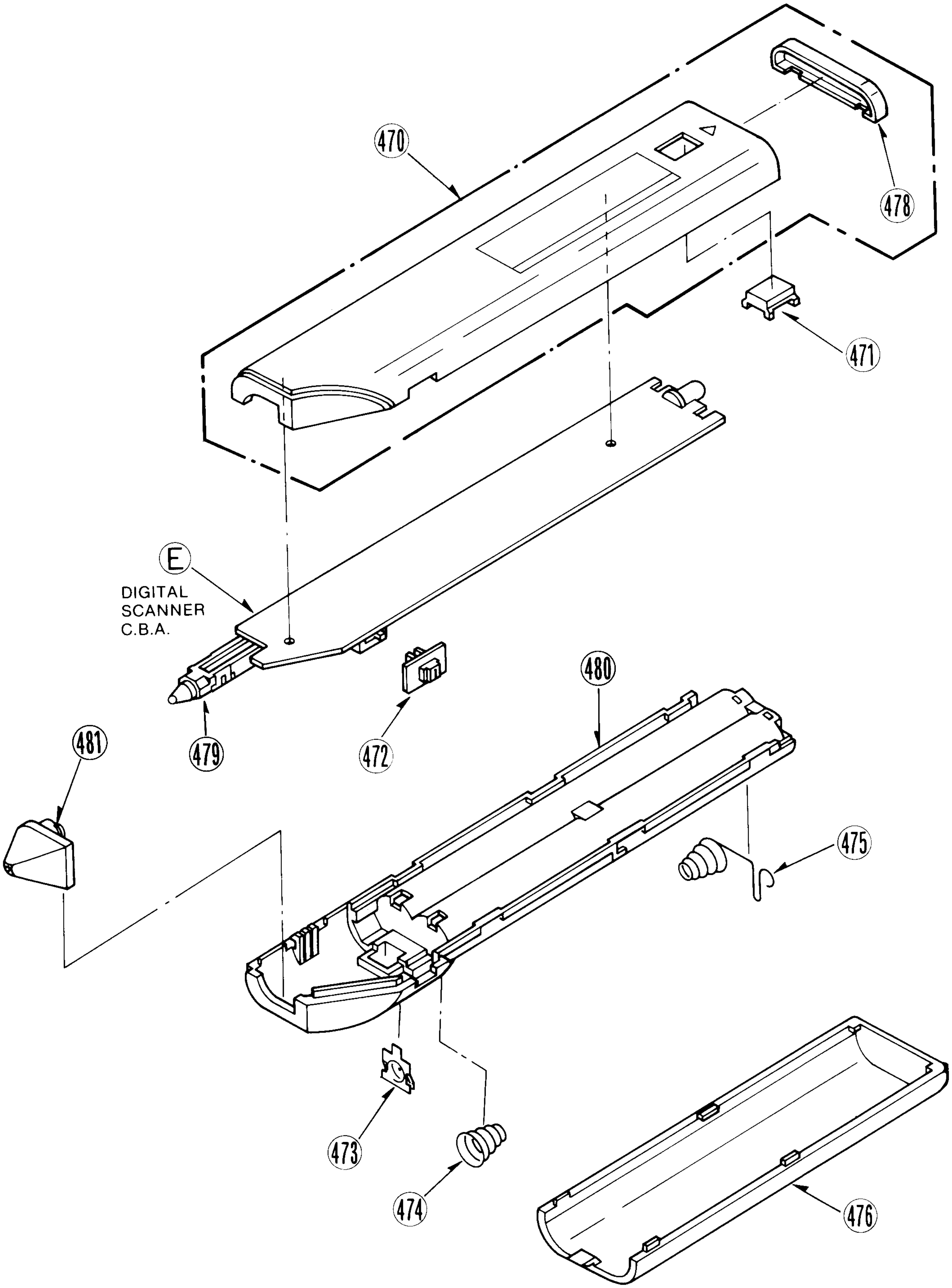
❺ PACKING PARTS SECTION


416
408
409
410
414
401
402
403
418
419
400
420
417
NV−G50PX ONLY
412
405
NV−G300EM ONLY
407
404
406

❻ REMOTE CONTROLLER UNIT


450
455
453
454
Ⓔ
PROGRAMMABLE REMOTE CONTROLLER C.B.A.
452
451

❼ DIGITAL SCANNER


470
478
471
E
DIGITAL
SCANNER
C.B.A.
480
481
479
472
475
473
474
476

PARTS LIST

ORDER NO. VRD8804M120
(Date of issue: APR, 1988)

MODEL NO: NV-G50PX/NV-G300EM

1.NV-G50PX/NV-G300EM Mechanical Replacement Parts List

※This parts list is detachable from the manual.

Note:1.* Be sure to make your orders of replacement parts according to this list.
2.IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
1(1)		VHD0141	HEAD AMP SET SCREW	2	
2(1)		VMA6897	HEAD AMP MOUNT ANGLE (L)	1	
3(1)		VMA6898	HEAD AMP MOUNT ANGLE (R)	1	
4(1)		VEK3185	DEW SENSOR UNIT	1	
5(1)		VXA2702	EARTH PLATE UNIT	1	
6(1)		VEG0626	CYLINDER UNIT	1	<!>
7(1)		VEH0400	UPPER CYLINDER UNIT	1	
9(1)		VMA6884	MAIN HOLDER UNIT	1	
10(1)		VSC2188	CYLINDER C.B.A SHIELD PLATE	1	
11(1)		VXL1495	TENSION ARM (1) UNIT	1	
12(1)		VMB1563	TENSION SPRING	1	
13(1)		VXZ0225	TENSION BAND UNIT	1	
14(1)		VXR0145	SUPPLY REEL TABLE UNIT	1	
15(1)		VMX1171	REEL WASHER (0.5mm)	2	
15(1)		VMX1239	REEL WASHER (0.3mm)	2	
15(1)		VMX1238	REEL WASHER (0.2mm)	2	
16(1)		VXL1496	TENSION RELEASE ARM(A)UNIT	1	
17(1)		VBS0038	FE HEAD	1	
18(1)		VXA2705	TENSION ARM BASE (1) UNIT	1	
19(1)		VMA6895	MOUNT ANGLE (L)	1	
20(1)		VMX1079	CUT WASHER	3	
21(1)		VXL1497	TENSION RELEASE ARM(B)UNIT	1	
22(1)		VMB1582	TENSION RELEASE SPRING	1	
23(1)		VES0350	SAFETY SW	1	
24(1)		VXZ0229	SUPPLY MAIN BRAKE UNIT	1	
25(1)		VXZ0228	SUPPLY SOFT BRAKE(1)UNIT	1	
26(1)		VMB1564	SUPPLY SOFT BRAKE SPRING	1	
27(1)		VXZ0231	TAKE UP MAIN BRAKE UNIT	1	
28(1)		VXZ0221	TAKE UP SOFT BRAKE UNIT	1	
29(1)		VMB1561	TAKE UP SOFT BRAKE SPRING	1	
30(1)		VMA6896	MOUNT ANGLE (R)	1	
31(1)		VHD0322	ADJUST SCREW	1	
32(1)		VMB1251	ADJUST SPRING	1	
33(1)		VHD0089B	AZIMUTH ADJUST SCREW	1	
34(1)		VBR0132	A/C HEAD	1	
35(1)		VHN0063	M4 NYLON NUT	1	
36(1)		VHN0050	ADJUST NUT	1	
37(1)		VXA2675	HEAD BASE UNIT	1	
38(1)		VMB1567	A/C HEAD SPRING	1	
39(1)		VXL1480	SUB LOADING ARM (1) UNIT	1	
40(1)		VMB1566	SUB POST SPRING	1	
41(1)		VXQ0006	THRUST SCREW UNIT	1	
42(1)		VHD0317	HOUSING SCREW	2	
43(1)		VMX1033	OIL SEAL	2	
44(1)		VMX1353	PINCH CAM CAP	1	
45(1)		VXL1743	PRESSURE ROLLER UNIT	1	
46(1)		VMB1568	PIN PRESSURE SPRING	1	
47(1)		VML1873	PINCH PRESSURE ARM	1	
48(1)		VMB1569	PINCH PRESSURE ARM RELEASE	1	
			SPRING		
49(1)		VML1874	PINCH LIFT ARM	1	
50(1)		VDG0357	P5 PULL OUT SECTOR GEAR	1	
51(1)		VDG0421	PINCH CAM	1	
52(1)		VHN0023	M3 NYLON NUT	1	
53(1)		VXL1485	P5 UNIT	1	
54(1)		VMB1554	P5 SPRING	1	
55(1)		VSS0175	MODE SW	1	
56(1)		VSC1851	SHIELD PLATE	1	
57(1)		VXP0863	ROLLER POST UNIT	1	
58(1)		VXA2729	INCLIND BASE (S)(1)UNIT	1	
59(1)		VHD0133	ROLLER POST SCREW	2	
60(1)		VMD0910	POST STOPPER	2	
61(1)		VXP0764A	ROLLER POST UNIT	1	
62(1)		VXA2686	INCLIND BASE(T)(1)UNIT	1	
63(1)		VXA2687	INCLIND ADJUST PLATE UNIT	1	
64(1)		VDG0483	PINCH SPEED DOWN GEAR	1	
65(1)		VDG0332	CONNECTION GEAR	1	
66(1)		VXA2693	SOLENOID	1	
67(1)		VXA2692	KICK ROD UNIT	1	
68(1)		VML1849	SOLENOID LEVER (1) UNIT	1	
69(1)		VMB1553	KICK ROD SPRING	1	
70(1)		VMB1565	MAIN BRAKE SPRING	1	
71(1)		VXR0146	TAKE UP REEL TABLE UNIT	1	
72(1)		VXD0101	HOUSING UNIT	1	
74(1)		VSC1843	HEAT SINK PLATE	1	
75(1)		VHD0329	HEAT SINK SCREW	1	
76(1)		VHD0374	HOUSING SCREW	1	
77(1)		VHD0342	CYLINDER MOUNT SCREW	3	
100(2)		VMX1079	CUT WASHER	9	
101(2)		VMB1583	TAKE UP SOFT BRAKE RELEASE	1	
			ARM SPRING		
102(2)		VMB1560	MAIN LEVER SPRING	1	
103(2)		VXA2701	MAIN LEVER (1) UNIT	1	
104(2)		VMM0160	SUB LEVER	1	
105(2)		VXL1500	SS BRAKE ARM UNIT	1	
106(2)		VMB1588	SS BRAKE SPRING	1	
107(2)		VXA2707	SS BRAKE BASE (1) UNIT	1	
108(2)		VXA2674	TENSION ROLLER UNIT	1	
109(2)		VXL1632	CAM FOLLOWER ARM UNIT	1	
110(2)		VML1861	DETENT ARM	1	
111(2)		VDG0346	MAIN CAM GEAR	1	
112(2)		VDG0343	SUB CAM GEAR	1	
113(2)		VDG0348	CENTRE GEAR	1	
114(2)		VDG0422	RETAINER GEAR	1	
115(2)		VDG0345	PLANET GEAR	3	
116(2)		VDG0349	CLUTCH DISK	1	
117(2)		VMB1558	CLUTCH SPRING	1	
118(2)		VDG0350	LOCK SLIDE GEAR	1	
119(2)		VDG0335	DRIVE DISK	1	
120(2)		VDG0342	RING GEAR	1	
121(2)		VMX0967	CUT WASHER	2	
122(2)		VML1859	CHANGE LEVER	1	
123(2)		VXA2672	RELEASE LEVER (1) UNIT	1	
124(2)		VMB1557	RELEASE SPRING	1	
125(2)		VML1860	RELEASE LEVER	1	
127(2)		VXP1002	TAKE UP REEL GEAR UNIT	1	
128(2)		VDG0445	SUPPLY REEL GEAR	1	
129(2)		VML1858	RETURN LEVER (R)	1	
130(2)		VML1857	RETURN LEVER (L)	1	
131(2)		VMD0913	STOPPER BASE	1	
132(2)		VDV0169	TIMING BELT	1	
133(2)		VXP0777	ROTOR UNIT	1	
134(2)		VMA6998	ROTOR STOPPER	1	
135(2)		VEK2944	STATOR UNIT	1	<!>
136(2)		VMA6847	SUB PLATE	1	
137(2)		VXP0917	CENTRE PULLEY UNIT	1	
138(2)		VDG0420	LOADING GEAR (T)	1	
139(2)		VMB1555	LOADING SPRING (T)	1	
140(2)		VXL1489	LOADING ARM (T)(1) UNIT	1	
141(2)		VXA3144	SECTOR GEAR UNIT	1	
142(2)		VDG0448	LOADING CAM GEAR	1	
143(2)		VDG0419	LOADING GEAR (S)	1	
144(2)		VML1855	PLAY CONTROL ARM	1	
145(2)		VXL1487	LOADING ARM (S)(1) UNIT	1	
146(2)		VDG0336	INTERMEDIATE GEAR	1	
147(2)		VXL1490	PLAY ARM UNIT	1	
148(2)		VBK0048	FG HEAD	1	
149(2)		VMB1746	LOADING SPRING(S)	1	
201(3)		VMA7223	TOP PLATE	1	
202(3)		VXA2679	CASSETTE HOLDER UNIT	1	
203(3)		VMB1573	MOUNT LEVER SPRING	1	
204(3)		VMD0919	HOLDER GUIDE (L)	1	
205(3)		VMM0163	MOUNT LEVER	1	
206(3)		VDP1077	ROLLER	2	
207(3)		VML1883	PRESSURE LEVER (L)	1	
208(3)		VMA6902	HOLDER ANGLE	1	
209(3)		VMA6901	CASSETTE HOLDER	1	
210(3)		VML1882	OPENER LEVER	1	
211(3)		VML1884	PRESSURE LEVER (R)	1	
212(3)		VMB1584	OPENER LEVER SPRING	1	
213(3)		VMD0920	HOLDER GUIDE (R)	1	
214(3)		VMB1576	RELEASE SPRING	1	
215(3)		VML1881	RELEASE LEVER	1	
216(3)		VXA2676	SIDE PLATE (L) UNIT	1	
217(3)		VMD0917	SIDE PLATE (L)	1	

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
218(3)		VML1880	OPENER LEVER	1	
219(3)		VXA3171	SIDE PLATE (R) UNIT	1	
220(3)		VMD0918	SIDE PLATE (R)	1	
221(3)		VSS0176	SLIDE SW	1	
222(3)		VML1886	DOWN SUPPORT LEVER	1	
223(3)		VMB1575	DOWN SUPPORT SPRING	1	
224(3)		VXA3148	RACK (A)(1) UNIT	1	
225(3)		VMB1778	CLUTCH SPRING	1	
226(3)		VMB1772	LOCK SPRING	1	
227(3)		VML1885	LOCK LEVER	1	
228(3)		VXA3147	RACK (B) UNIT	1	
229(3)		VXP0851	MAIN SHAFT UNIT	1	
230(3)		VMB1570	SUB WIPER SPRING (L)	1	
231(3)		VML1878	SUB WIPER ARM	1	
232(3)		VML1879	SUB WIPER ARM (R)	1	
233(3)		VMB1571	SUB WIPER SPRING (R)	1	
234(3)		VMA6900	CASSETTE GUIDE	1	
235(3)		VKF0848	BLINDER PANEL	1	NV-G300EM
235(3)		VKF1022	BLINDER PANEL	1	NV-G50PX
236(3)		VMB1258	BLINDER SPRING	1	
237(3)		VMB1780	RACK (C) SPRING	1	
238(3)		VMA7237	CONNECTION ROD	1	
239(3)		VMB1779	CONNECTION ROD SPRING	1	
240(3)		VMA7224	CASSETTE HOLDER ANGLE	1	
300(4)		VYP2341	TOP PANEL UNIT	1	NV-G300EM
300(4)		VYP2343	TOP PANEL UNIT	1	NV-G50PX
301(4)		VHD0378	TOP PANEL SCREW	4	
302(4)		VMG0272	RF CONVERTER BUSHING	1	
303(4)		VJF0031	WIRE SADDLE	1	
304(4)		VGQ1362	DEMODULATOR HOLDER	2	
305(4)		VGQ1372	C.B. HOLDER	1	
306(4)		VHD0268	MAIN SCREW	1	
307(4)		VKC0330	C.B. CLIP	4	NV-G50PX
308(4)		VMX1336	SPACER	3	NV-G50PX
309(4)		VKC0247	MAIN HINGE	2	
310(4)		VDG0484	DOOR GEAR	1	
311(4)		VML2075	DOOR OPEN LEVER	1	
312(4)		VMB1756	OPEN LEVER SPRING	1	
313(4)		VGQ1377	TR. HOLDER	1	
314(4)		VMP1734	SCREW ANGLE	1	<!>
315(4)		VMZ1140	SW BARRIER (A)	1	<!>
316(4)		VSC2237	POWER SHIELD CASE (BOTTOM)	1	
317(4)		VXA3179	POWER SHIELD CASE(MAIN)	1	
318(4)		VSC2397	POWER SHIELD CASE(TOP)	1	
319(4)		VGH1476	NAME PLATE	1	
320(4)		VMZ1224	INSULATING SHEET	1	
321(4)		VSC2238	IC HEAT SINK	1	
322(4)		VMZ1183	CAPACITOR COVER (A)	2	<!>
323(4)		VMZ1184	CAPACITOR COVER (B)	1	<!>
326(4)		VMP1127	TOP HOLDER ANGLE (R)	1	
327(4)		VMP1037	TOP HOLDER ANGLE (L)	3	
328(4)		VKA0026	RUBBER FOOT	2	
329(4)		VKA0065	BOTTOM LEG	2	
330(4)		VGP1747	SUPPORT PANEL	1	
331(4)		VMC0339	EARTH SPRING (A)	1	
332(4)		VXA3108	SUPPORT PANEL ANGLE (L)	1	
333(4)		VXA3109	SUPPORT PANEL ANGLE (R)	1	
334(4)		VYP2340	FRONT PANEL UNIT	1	NV-G300EM
334(4)		VYP2342	FRONT PANEL UNIT	1	NV-G50PX
335(4)		VMC0365	BUTTON PLATE SPRING	1	
336(4)		VGU4283	DOOR OPEN BUTTON	1	NV-G300EM
336(4)		VGU4284	DOOR OPEN BUTTON	1	NV-G50PX
337(4)		VGP1988	SUB PANEL	1	NV-G300EM
337(4)		VGP1990	SUB PANEL	1	NV-G50PX
338(4)		VYC0263	DOOR ALUMINUM UNIT	1	NV-G300EM
338(4)		VYC0264	DOOR ALUMINUM UNIT	1	NV-G50PX
339(4)		VES0440	KEY BOARD PANEL UNIT	1	NV-G300EM
339(4)		VES0441	KEY BOARD PANEL UNIT	1	NV-G50PX
340(4)		VMC0340	EARTH SPRING (B)	1	
341(4)		VGP1724	DOOR BACK PANEL	1	
342(4)		VDG0436	DAMPER GEAR	1	
343(4)		VKU0268	BOTTOM PLATE	1	
344(4)		VHD0059	BOTTOM SCREW	8	
345(4)		VGL0352	PANEL LIGHT	1	NV-G300EM
345(4)		VGL0353	PANEL LIGHT	1	NV-G50PX

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
346(4)		VMB0904	BUTTON SPRING	5	
347(4)		VGU4282	SYSTEM SELECT BUTTON	5	NV-G300EM
347(4)		VGU4145	SYSTEM SELECT BUTTON	4	NV-G50PX
400(5)		VQT2658	OPERATING INSTRUCTIONS	1	<!> NV-G300EM
			(ENGLISH/ARABIC)		
400(5)		VQT2659	OPERATING INSTRUCTIONS	1	<!> NV-G300EM
			(HINDI/URDU)		
400(5)		VQT2660	OPERATING INSTRUCTIONS	1	<!> NV-G50PX
401(5)		VJA0376	DIN RF CABLE	1	
402(5)		VJSS0070	POWER PLUG ADAPTOR	1	NV-G300EM
402(5)		VJP1005	POWER PLUG ADAPTOR	1	NV-G50PX
403(5)		VEQ0701	REMOTE CONTROL UNIT	1	NV-G300EM
403(5)		VEQ0789	REMOTE CONTROL UNIT	1	NV-G50PX
404(5)		VPN2064	CUSHION (L)	1	NV-G300EM
404(5)		VPN2220	CUSHION (L)	1	NV-G50PX
405(5)		VPN2065	CUSHION (R)	1	NV-G300EM
405(5)		VPN2221	CUSHION (R)	1	NV-G50PX
406(5)		VPG4072	PACKING CASE	1	NV-G300EM
406(5)		VPG4073	PACKING CASE	1	NV-G50PX
407(5)		VPQ0001	HANDLE	1	NV-G300EM
408(5)		VJA0459	AC CORD	1	<!> NV-G300EM
408(5)		VJA0449	AC CORD	1	<!> NV-G50PX
409(5)		VEQ0653	DIGITAL SCANNER	1	NV-G300EM
409(5)		VEQ0639	DIGITAL SCANNER	1	NV-G50PX
410(5)		VQC1168	PROGRAMME SHEET	1	NV-G300EM
410(5)		VQC1177	PROGRAMME SHEET	1	NV-G50PX
412(5)		VPK0834	ACCESSORIES PACKING CASE	1	
414(5)		VFC0111	DIGITAL SCANNER CASE	1	NV-G300EM
414(5)		VFC0115	DIGITAL SCANNER CASE	1	NV-G50PX
416(5)		VQF2115	CLEANING BRUSH	1	
417(5)		VJP1384	DIN F PLUG ADAPTOR	1	NV-G50PX
418(5)		VFA0021	ANTENNA PLUG	1	NV-G50PX
419(5)		TJB521900	75ohm DIN PLUG	1	NV-G50PX
420(5)		VFA0023	U/V SPLITTER	1	NV-G50PX
450(6)		VYK1980	TOP CASE UNIT	1	NV-G300EM
450(6)		VYK2146	TOP CASE UNIT	1	NV-G50PX
451(6)		VKM1133	BOTTOM CASE	1	
452(6)		VKF0971	BATTERY COVER	1	
453(6)		VKW0878	IR WINDOW	1	
454(6)		VSP0323	RUBBER CONTACT	1	NV-G300EM
454(6)		VSP0371	RUBBER CONTACT	1	NV-G50PX
455(6)		VJR0185	ELECTRODE (COMMON)	1	
470(7)		VYK1922	TOP CASE UNIT	1	NV-G300EM
470(7)		VYK1193	TOP CASE UNIT	1	NV-G50PX
471(7)		VGU4040	TRANSMISSON BUTTON	1	
472(7)		VGU3709	POWER SW KNOB	1	
473(7)		VJR0395	ELECTRODE (+)	1	
474(7)		VJR0396	ELECTRODE (-)	1	
475(7)		VJR0272	ELECTRODE (COMMON)	1	
476(7)		VKF0900	BATTERY COVER	1	
477(7)		VKM1207	BOTTOM CASE	1	
478(7)		VKW0772	SMOKE FILTER	1	
479(7)		VSQ0567	SENSOR UNIT	1	
480(7)		VKM0995	SENSOR CAP	1	
			JIG		
		VFM8080HMFPH	VHS-ALIGNMENT TAPE (NTSC)	1	
		VFJ8125H3F	VHS-ALIGNMENT TAPE (PAL)	1	
		VFK0335	RETAINING RING REMOVER	1	
			(3mm/4mm)		
		VFK0387	TENSION POST ADJUSTMENT	1	
			PLATE		
		VFK0191	POST ADJUSTMENT PLATE	1	
		VFK0190	REEL TABLE HEIGHT GAUGE	1	
		VFK0328	H-POSITION ADJ.	1	
			SCREWDRIVER		
		VFK0329	POST ADJUSTMENT SCREWDRIVER	1	
		VFK62	FAN TYPE TENSION GAUGE	1	
		VFK0326	HEX WRENCH SET	1	

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VFK0132	BACK TENSION METER	1	
		VFK0343	CHECK LIGHT	1	
		VFK0344	HEIGHT ADJUSTMENT JIG	1	
		VFK27	HEAD CLEANING STICK	1	
		MOR265	MORLYTONE GREASE	1	
		VFK0283	SERVICE ALIGNMENT TOOL KIT	1	
		VFK0341	UPPER CYLINDER REMOVER	1	

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

2.NV-G50PX Electrical Replacement Parts List

Note:1.* Be sure to make your orders of replacement parts according to this list.
2.IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.
3.Unless otherwise specified,
All resistors are in OHMS ,K=1,000 OHMS. All capacitors are in MICRO-FARADS(uf),P=uuF.
4.The P.C.Board units marked width'■'show below the main assembled parts.
5.Printed circuit board assembly with mark(NLA) is no longer available after discontinuation of the product.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VEP03486C	MAIN C.B.A. (SYSTEM CONTROL, SERVO, LUMINANCE & CHROMINANCE, AUDIO)	1	<!> (NLA) INCLUDING THE LUMINANCE & CHROMINANCE PACK C.B.A.(VEP03489B), SECAM PACK C.B.A. (VEP03452C), INPUT/OUTPUT PACK C.B.A.(VEP03487C).
		VEP03489B	LUMINANCE & CHROMINANCE PACK C.B.A.	1	(NLA) INCLUDING THE SECAM PACK C.B.A. (VEP03452C). INCLUDED IN MAIN C.B.A.(VEP03486C).
		VEP03452C	SECAM PACK C.B.A.	1	(NLA) INCLUDED IN MAIN C.B.A.(VEP03486C).
		VEP03487C	INPUT/OUTPUT PACK C.B.A.	1	(NLA) INCLUDED IN MAIN C.B.A.(VEP03486C).
		VEP06461A	SERVO & SYSTEM CONTROL C.B.A.	1	(NLA) INCLUDING THE SUB SERVO PACK C.B.A. (VEP02319A).
		VEP02319A	SUB SERVO PACK C.B.A.	1	(NLA) INCLUDED IN SERVO & SYSTEM CONTROL C.B.A. (VEP06461A).
		VEP08124B	SUB CHROMINANCE C.B.A.	1	(NLA)
		VEP03490C	0.32H SKEW C.B.A.	1	(NLA)
		VEP05113G	HEAD AMP C.B.A.	1	(NLA)
		VEP07438C	TIMER C.B.A.	1	(NLA) INCLUDING THE IR RECEIVER C.B.A. (VEP06380E).
		VEP06380E	IR RECEIVER C.B.A.	1	(NLA) INCLUDED IN TIMER C.B.A.(VEP07438C).
		VEP06462A	OPERATION C.B.A.	1	(NLA)
		VEP07459C	RF UNIT C.B.A.	1	(NLA) INCLUDING THE CH SELECT C.B.A. (VEP07423C).
		VEP01310A	POWER C.B.A.	1	<!> (NLA) INCLUDING THE POWER INLET C.B.A. (VEP01311A).
		VEP01311A	POWER INLET C.B.A.	1	<!> (NLA) INCLUDED IN POWER C.B.A.(VEP01310A).
		VEP00K62A	CYLINDER DRIVE C.B.A.	1	(NLA)
		VEK3583	MECHANISM CONNECTION C.B.A.	1	(NLA)
		VEK3555	REEL SENSOR C.B.A.	1	(NLA)
		VXA2689	LED C.B.A.	1	(NLA)
		VEK3577	TAKE UP PHOTO Tr. C.B.A.	1	(NLA)
		VEK3578	SUPPLY PHOTO Tr. C.B.A.	1	(NLA)
		VEP66038A	REMOTE CONTROLLER C.B.A.	1	(NLA)
		VEP66033C	DIGITAL SCANNER C.B.A.	1	(NLA)
		ENC87794	RF CONVERTER	1	<!>
		ENV59804F2	TUNER	1	<!>
F1001		XBA2C16TB0	FUSE 250V 1.6A	1	<!>
	■	VEP03486C	MAIN C.B.A. (SYSTEM CONTROL, SERVO, LUMINANCE & CHROMINANCE, AUDIO)		<!> (NLA) INCLUDING THE LUMINANCE & CHROMINANCE PACK C.B.A.(VEP03489B), SECAM PACK C.B.A. (VEP03452C), INPUT/OUTPUT PACK C.B.A.(VEP03487C).
			CONNECTORS		
BP1101		VJP1396	CONNECTOR (MALE)	1	
BP3001		VJP1808	CONNECTOR (MALE)	1	
BP3002		VJP1257	CONNECTOR (MALE)	1	
BP3003		VJP1260	CONNECTOR (MALE)	1	
BP7402		VJP1262	CONNECTOR (MALE)	1	
BP8001		VJP1260	CONNECTOR (MALE)	1	
BP8002		VJP1259	CONNECTOR (MALE)	1	
			CAPACITORS		

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C301		ECUM1H390JCN	C.CAPACITOR CH 50V 39P	1	
C302		ECUM1H820JCN	CHIP 50V 82P	1	
C303		ECUM1H470JCN	CHIP 50V 47P	1	
C304		ECEA1AK470	E.CAPACITOR 10V 47U	1	
C305		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C306		ECUM1H220JCN	CHIP 50V 22P	1	
C307		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C308		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C309		ECUM1H220JCN	CHIP 50V 22P	1	
C310		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C311		ECUM1H560JCN	CHIP 50V 56P	1	
C312,13		ECUM1H180JCN	CHIP 50V 18P	2	
C314		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C315		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C316		ECQB1H562JH	P.CAPACITOR 50V 5600P	1	
C317		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C318		ECEA1EKN2R2	E.CAPACITOR 25V 2.2U	1	
C319		ECEA1EKA220	E.CAPACITOR 25V 22U	1	
C320		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C321		ECEA0JU331	E.CAPACITOR 6.3V 330U	1	
C322		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C323		ECUM1H470JCN	CHIP 50V 47P	1	
C324		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C325		ECUM1H560JCN	CHIP 50V 56P	1	
C326		ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C327		ECUM1H820JCN	CHIP 50V 82P	1	
C328		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C329		ECUM1H680JCN	CHIP 50V 68P	1	
C330		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C331		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C332		ECUM1H270JCN	CHIP 50V 27P	1	
C333		ECUM1H101JCN	CHIP 50V 100P	1	
C334		ECUM1H680JCN	CHIP 50V 68P	1	
C335		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C336		ECEA1HK4R7	E.CAPACITOR 50V 4.7U	1	
C337		ECQV1H334JZ	P.CAPACITOR 50V 0.33U	1	
C338-40		ECUM1H103ZFN	CHIP 50V 0.01U	3	
C341,42		ECEA1CK100	E.CAPACITOR 16V 10U	2	
C343,44		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C345		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C801		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C802		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C803		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C804		ECEA25Z4R7	E.CAPACITOR 25V 4.7U	1	
C805		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C806		ECEA0JU221	ELECTROLYTIC 6.3V 220U	1	
C807		ECUM1H050CCN	CHIP 50V 5P	1	
C808		ECUM1H102KBN	CHIP 50V 1000P	1	
C809		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C811		ECUM1H471KBN	CHIP 50V 470P	1	
C812		ECUM1H270JCN	CHIP 50V 27P	1	
C813		ECUM1H101JCN	CHIP 50V 100P	1	
C814		ECUM1H820JCN	CHIP 50V 82P	1	
C815		ECUM1H681KBN	C.CAPACITOR CH 50V 680P	1	
C816		ECQV1H154JZ	P.CAPACITOR 50V 0.15U	1	
C817		ECEA0JK101	E.CAPACITOR 6.3V 100U	1	
C818		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C819		ECQV1H474JZ	P.CAPACITOR 50V 0.47U	1	
C822		ECQV1H274JZ	P.CAPACITOR 50V 0.27U	1	
C823		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C824		ECUM1H471KBN	CHIP 50V 470P	1	
C851		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C852		ECEA1CK330	E.CAPACITOR 16V 33U	1	
C853		ECEA10Z47	E.CAPACITOR 10V 47U	1	
C854		ECQV1H563JZ	P.CAPACITOR 50V 0.056U	1	
C855		ECEA1CK330	E.CAPACITOR 16V 33U	1	
C856		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C2001-03		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	3	
C2004-06		ECQB1H333JH	P.CAPACITOR 50V 0.033U	3	
C2007-09		ECKF1H332KB	C.CAPACITOR 50V 3300P	3	
C2010,11		ECQB1H223JH	P.CAPACITOR 50V 0.022U	2	
C2012		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C2014		ECEA25Z47	E.CAPACITOR 25V 47U	1	
C2015		ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
C2016		ECEA1CK101	E.CAPACITOR 16V 100U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C2017		ECKF1H821KB	C.CAPACITOR 50V 820P	1	
C3014,15		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	2	
C3016		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C3017		ECKF1H392KB	C.CAPACITOR 50V 3900P	1	
C3018		ECCF1H470JC	C.CAPACITOR 50V 47P	1	
C3019		ECCF1H330JC	C.CAPACITOR 50V 33P	1	
C3020		ECCF1H181JC	C.CAPACITOR 50V 180P	1	
C3021		ECCF1H220JC	C.CAPACITOR 50V 22P	1	
C3022		ECCF1H151JC	C.CAPACITOR 50V 150P	1	
C3023		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C3024		ECCF1H330JC	C.CAPACITOR 50V 33P	1	
C3025		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C3026		ECCF1H220JC	C.CAPACITOR 50V 22P	1	
C3027		ECKF1H681KB	C.CAPACITOR 50V 680P	1	
C3028		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C3029		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C3030		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C3033		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C3034		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C3035		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C3501,02		ECEA1CK100	E.CAPACITOR 16V 10U	2	
C3503,04		VCYD1E332KR	S.CAPACITOR 25V 3300P	2	
C3505		ECEA0JU471	E.CAPACITOR 6.3V 470U	1	
C3506		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C3507		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C3508		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C4001		ECQP1332JZ	M.CAPACITOR 100V 3300P	1	
C4002		ECCD2H121K	C.CAPACITOR 500V 120P	1	
C4003		ECEA16Z33	E.CAPACITOR 16V 33U	1	
C4004		ECKF1H102ZF	C.CAPACITOR 50V 1000P	1	
C4005		ECQB1H153JH	P.CAPACITOR 50V 0.015U	1	
C4006		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C4007		ECEA1CK330	E.CAPACITOR 16V 33U	1	
C4008		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C4009		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C4010		ECQB1H123JH	P.CAPACITOR 50V 0.012U	1	
C4011		ECQB1H273JH	P.CAPACITOR 50V 0.027U	1	
C4012		ECQB1H183JH	P.CAPACITOR 50V 0.018U	1	
C4013		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C4014		ECCF1H121JC	C.CAPACITOR 50V 120P	1	
C4015		ECKF1H331KB	C.CAPACITOR 50V 330P	1	
C4016		ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
C4017		ECEA1CKL100	E.CAPACITOR 16V 10U	1	
C4018		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C4019		ECEA16Z47	E.CAPACITOR 16V 47U	1	
C4020		ECQB1H122JH	P.CAPACITOR 50V 1200P	1	
C4021		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C4022,23		ECKF1H102KB	C.CAPACITOR 50V 1000P	2	
C4024		ECEA1AK101	E.CAPACITOR 10V 100U	1	
C4025		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C4026		ECCF1H101JC	C.CAPACITOR 50V 100P	1	
C4027		ECCF1H221JC	C.CAPACITOR 50V 220P	1	
C4028		ECCF1H101JC	C.CAPACITOR 50V 100P	1	
C4029		ECKF1H471KB	C.CAPACITOR 50V 470P	1	
C4033		ECQB1H222JH	P.CAPACITOR 50V 2200P	1	
C6007		ECKF1H562KB	C.CAPACITOR 50V 5600P	1	
C6008		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C6011		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C6013		ECKF1H103KB	C.CAPACITOR 50V 0.01U	1	
C6014		ECEA1EK100	E.CAPACITOR 25V 10U	1	
C6015		ECEA1CU101	E.CAPACITOR 16V 100U	1	
C6016		ECEA0JU221	E.CAPACITOR 6.3V 220U	1	
C6017		EECS5R5V105	TRIMMER	1	
C6020		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C6021		ECEA1HU101B	E.CAPACITOR 50V 100U	1	
C6022		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C6031		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C6035		ECEA1AFS221	E.CAPACITOR 10V 220U	1	
C6036		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C8001		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C8002		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C8003		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C8005		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C8006		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C8008		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C8009		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C8010		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
			DIODES		
D301		MA4091	DIODE	1	
D801		1SS254	DIODE	1	
D2001		1SS254	DIODE	1	
D3001		1SS254	DIODE	1	
D3501-08		1SS254	DIODE	8	
D3510		1SS254	DIODE	1	
D3511		MA27W	DIODE	1	
D4001		1SS254	DIODE	1	
D4002		AK04	DIODE	1	
D4003-05		1SS254	DIODE	3	
D6001,02		1SS254	DIODE	2	
D6004		1SS254	DIODE	1	
D6006		1SS254	DIODE	1	
D6008-11		1SS254	DIODE	4	
D6013,14		1SS254	DIODE	2	
D6019		MA4140M	DIODE	1	
D6020		MA4110M	DIODE	1	
D6021-30		1SS254	DIODE	10	
D6031		ERA15-01	DIODE	1	
D6032		1SS254	DIODE	1	
D6035,37		1SS254	DIODE	2	
D6038		MA4056L	DIODE	1	
D6039,40		1SS254	DIODE	2	
			DELAY LINE		
DL802		EFDHR124A13S	DELAY LINE	1	
			FILTERS		
FL301		VLF0499	FILTER	1	
FL302		ELB4M022	FILTER	1	
FL303		VLF0567	FILTER	1	
FL801		EFCS5R06MS4V	CERAMIC FILTER 5.06MHZ	1	
FL802		VLF0299	FILTER	1	
FL851		EFCS4R5MS4C	FILTER	1	
FL3501		ELB4H020	FILTER	1	
			INTEGRATED CIRCUITS		
IC301		VEFH03D	HIC	1	
IC302		MSM6965-3RS	IC	1	
IC801		VEFH04A	HIC	1	
IC851		BA7025L	IC	1	
IC2001		BA6432S	IC	1	
IC3002		AN3396	IC	1	
IC3501		BA7004	IC	1	
IC4001		BA7766AS	IC	1	
IC6001		BU3761S	IC	1	
IC6003		MC74HC08N	IC	1	
			CONNECTORS		
JP7001		VJS2151W	CONNECTOR (FEMALE)	1	
JP7002		VJS2152W	CONNECTOR (FEMALE)	1	
JP7401		VJS2159W	CONNECTOR (FEMALE)	1	
			PACK PINS		
KR851		VJR0163	PACK PIN	1	
			COILS		

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
L301		VLQEL05F121K	COIL 120UH	1	
L302		VLQEL05F680K	COIL 68UH	1	
L303,04		VLQEL05F101K	COIL 100UH	2	
L305		VLQEL05F220K	COIL 22UH	1	
L306		VLQEL05F2R2K	COIL 2.2UH	1	
L307		VLQEL05F220K	COIL 22UH	1	
L308-10		VLQEL05F101K	COIL 100UH	3	
L801		VLQEL05F101K	COIL 100UH	1	
L802		VLQEL05F470K	COIL 47UH	1	
L803		VLQEL05F151K	COIL 150UH	1	
L804		VLQEL05F270K	COIL 27UH	1	
L805		VLQEL05F331K	COIL 330UH	1	
L806		VLQEL05F681K	COIL 680UH	1	
L807		VLQEL05F470K	COIL 47UH	1	
L808		VLQEL05F101K	COIL 100UH	1	
L811		VLQEL05F150K	COIL 15UH	1	
L812		VLQEL05F681K	COIL 680UH	1	
L851		VLQEL05F101K	COIL 100UH	1	
L2001		VLQEL05F102K	COIL 1mH	1	
L3005		VLQEL05F101K	COIL 100UH	1	
L3006		VLQEL05F4R7K	COIL 4.7UH	1	
L3007		VLQEL05F6R8K	COIL 6.8UH	1	
L3008		VLQEL05F120K	COIL 12UH	1	
L3009,10		VLQEL05F101K	COIL 100UH	2	
L3011		VLQEL05F3R3K	COIL 3.3UH	1	
L3501-03		VLQEL05F101K	COIL 100UH	3	
L4001		VLQEL05F471K	COIL 470UH	1	
L4002		VLQ0317	COIL	1	
L6003,04		VLQEL05F100K	COIL 10UH	2	
L8001,02		VLQEL05F101K	COIL 100UH	2	
			CONNECTORS		
P501		VJS1741T	CONNECTOR (FEMALE)	1	
P502		VJS1235T	CONNECTOR (FEMALE)	1	
P1001		VJF0171T	CONNECTOR	1	
P1102		VJP1148	CONNECTOR (MALE)	1	
P1102		VJS1141	CONNECTOR (FEMALE)	1	
P2001		VJP1932T	CONNECTOR (MALE)	1	
P3501		VJS1236T	CONNECTOR (FEMALE)	1	
P4001		VJP1233T	CONNECTOR (MALE) 6P	1	
P4002		VJP1229T	CONNECTOR (MALE) 2P	1	
P7506		VJS1238T	CONNECTOR	1	
P8501		VJS1236T	CONNECTOR (FEMALE)	1	
P8502		VJS1235T	CONNECTOR (FEMALE)	1	
			PACK PINS		
PK301		VJR0128	PACK PIN	1	
PK302		VJR0161	PACK PIN	1	
PK303		VJR0129	PACK PIN	1	
PK304		VJR0130	PACK PIN	1	
			CONNECTORS		
PP3001		VJP1862	CONNECTOR (MALE)	1	
PP3002		VJP1861	CONNECTOR (MALE)	1	
			CONNECTORS		
PS3501		VJS1862	CONNECTOR (FEMALE)	1	
PS3502		VJS1861	CONNECTOR (FEMALE)	1	
			TRANSISTORS		
Q301		2SC1009A	TRANSISTOR	1	
Q302		2SA812	TRANSISTOR	1	
Q303,04		2SC1009A	TRANSISTOR	2	
Q802		2SA182	TRANSISTOR	1	
Q3010,11		2SD636	TRANSISTOR	2	

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
Q3012		2SC2206	TRANSISTOR	1	
Q3014		2SD636	TRANSISTOR	1	
Q3501		2SD636	TRANSISTOR	1	
Q3502		2SB641	TRANSISTOR	1	
Q4001		2SD638	TRANSISTOR	1	(R)
Q6003		2SD1275	TRANSISTOR	1	
Q6004		2SD636	TRANSISTOR	1	
Q6008		2SB641	TRANSISTOR	1	
Q8001,02		2SD636	TRANSISTOR	2	
Q8004,05		2SD636	TRANSISTOR	2	
			COMBINATION PARTS		
			(TRANSISTOR & RESISTORS)		
QR301		DTC124EK	TRANSISTOR-RESISTOR	1	
QR302		DTC114YA	TRANSISTOR-RESISTOR	1	
QR303		DTC114YK	TRANSISTOR-RESISTOR	1	
QR304		DTC124EK	TRANSISTOR-RESISTOR	1	
QR305		DTC144EK	TRANSISTOR-RESISTOR	1	
QR306		DTC124EK	TRANSISTOR-RESISTOR	1	
QR801		DTC124EK	TRANSISTOR-RESISTOR	1	
QR803		DTC114YK	TRANSISTOR-RESISTOR	1	
QR3001		DTC124EA	TRANSISTOR-RESISTOR	1	
QR3002,03		2SD1676	COMBINATION PARTS	2	
QR3004		DTC114EA	TRANSISTOR-RESISTOR	1	
QR3005		DTC124EA	TRANSISTOR-RESISTOR	1	
QR3501-03		DTC114YA	TRANSISTOR-RESISTOR	3	
QR4001,02		2SD1676	COMBINATION PARTS	2	
QR6001		DTC144EA	TRANSISTOR-RESISTOR	1	OR UN1213
QR6002		DTA114EA	TRANSISTOR-RESISTOR	1	
QR6003		DTC124EA	TRANSISTOR-RESISTOR	1	
QR6004		DTC144EA	TRANSISTOR-RESISTOR	1	OR UN1213
QR6005		DTA144EA	TRANSISTOR-RESISTOR	1	
QR6006		DTC124EA	TRANSISTOR-RESISTOR	1	
QR6011		DTC144EA	TRANSISTOR-RESISTOR	1	OR UN1213
QR6012		DTC124EA	TRANSISTOR-RESISTOR	1	
QR6013		DTA114YA	TRANSISTOR-RESISTOR	1	
QR6014		DTA114EA	TRANSISTOR-RESISTOR	1	
QR6015		DTA144EA	TRANSISTOR-RESISTOR	1	
QR6016,17		DTA114EA	TRANSISTOR-RESISTOR	2	
QR6018		DTC114YA	TRANSISTOR-RESISTOR	1	
QR6020		DTA144EA	TRANSISTOR-RESISTOR	1	
QR6024		DTC144EA	TRANSISTOR-RESISTOR	1	OR UN1213
			RESISTORS		
R301		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R302		ERJ6GMYJ472	CHIP 1/16W 4.7K	1	
R303		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R304		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R305		ERJ6GMYJ822	CHIP 1/16W 8.2K	1	
R306		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R307		ERJ6GMYJ392	CHIP 1/16W 3.9K	1	
R308		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R309		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R310		ERJ6GMYJ123	CHIP 1/16W 12K	1	
R311		ERJ6GMYJ474	M.RESISTOR CH1/16W 470K	1	
R312		ERJ6GMYJ104	CHIP 1/16W 100K	1	
R314		ERJ6GMYJ101	CHIP 1/16W 100	1	
R315		ERJ6GMYJ391	CHIP 1/16W 390	1	
R316		ERJ6GMYJ331	CHIP 1/16W 330	1	
R317		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R318		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R319		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R320		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R321		ERJ6GMYJ122	CHIP 1/16W 1.2K	1	
R322		ERJ6GMYJ681	CHIP 1/16W 680	1	
R323		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R324		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R325		ERJ6GMYJ683	CHIP 1/16W 68K	1	
R326		ERJ6GMYJ183	CHIP 1/16W 18K	1	
R327		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R328		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R329		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R330		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R331		ERJ6GMYJ151	CHIP 1/16W 150	1	
R332		ERJ6GMYJ822	CHIP 1/16W 8.2K	1	
R333		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R334		ERJ6GMYJ824	CHIP 1/16W 820K	1	
R801		ERJ6GMYJ182	CHIP 1/16W 1.8K	1	
R802		ERJ6GMYJ822	CHIP 1/16W 8.2K	1	
R803		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R804		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R805		ERJ6GMYJ182	CHIP 1/16W 1.8K	1	
R808		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R809		ERJ6GMYJ822	CHIP 1/16W 8.2K	1	
R810		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R811		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R812		ERJ6GMYJ471	CHIP 1/16W 470	1	
R813		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R814		ERJ6GMYJ221	CHIP 1/16W 220	1	
R815		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R822		ERJ6GMYJ271	CHIP 1/16W 270	1	
R824		ERJ6GMYJ681	CHIP 1/16W 680	1	
R851		ERDS2TJ223	C.RESISTOR 1/4W 22K	1	
R852		ERDS2TJ390	C.RESISTOR 1/4W 39	1	
R853		ERDS2TJ154	C.RESISTOR 1/4W 150K	1	
R854		ERDS2TJ222	C.RESISTOR 1/4W 2.2K	1	
R855		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R856		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R2001-03		ERDS2TJ560	C.RESISTOR 1/4W 56	3	
R2004		ERDS2TJ330	C.RESISTOR 1/4W 33	1	
R2005		ERX12SJ1R0	M.RESISTOR 1/2W 1	1	
R2006		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R2007		EROS2CKG1201	M.RESISTOR 1/4W 1.2K	1	
R2008		ERDS2TJ472	C.RESISTOR 1/4W 4.7K	1	
R2009		ERDS2TJ682	C.RESISTOR 1/4W 6.8K	1	
R2010		ERDS2TJ473	C.RESISTOR 1/4W 47K	1	
R3021		ERDS2TJ750	C.RESISTOR 1/4W 75	1	
R3024		ERDS2TJ472	C.RESISTOR 1/4W 4.7K	1	
R3025		ERDS2TJ563	C.RESISTOR 1/4W 56K	1	
R3026		ERDS2TJ151	C.RESISTOR 1/4W 150	1	
R3027		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R3028		ERDS2TJ332	C.RESISTOR 1/4W 3.3K	1	
R3029,30		ERDS2TJ821	C.RESISTOR 1/4W 820	2	
R3032		ERDS2TJ222	C.RESISTOR 1/4W 2.2K	1	
R3033		ERDS2TJ332	C.RESISTOR 1/4W 3.3K	1	
R3034		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R3037		ERDS2TJ104	C.RESISTOR 1/4W 100K	1	
R3041		ERDS2TJ750	C.RESISTOR 1/4W 75	1	
R3501		ERDS2TJ272	C.RESISTOR 1/4W 2.7K	1	
R3502		ERDS2TJ122	C.RESISTOR 1/4W 1.2K	1	
R3503		ERDS2TJ272	C.RESISTOR 1/4W 2.7K	1	
R3504,05		ERDS2TJ750	C.RESISTOR 1/4W 75	2	
R3506		ERDS2TJ393	C.RESISTOR 1/4W 39K	1	
R3507		ERDS2TJ750	C.RESISTOR 1/4W 75	1	
R3508		ERDS2TJ223	C.RESISTOR 1/4W 22K	1	
R3509		ERDS2TJ152	C.RESISTOR 1/4W 1.5K	1	
R3510		ERDS2TJ561	C.RESISTOR 1/4W 560	1	
R3511,12		ERDS2TJ102	C.RESISTOR 1/4W 1K	2	
R3513		ERDS2TJ152	C.RESISTOR 1/4W 1.5K	1	
R3514		ERDS2TJ392	C.RESISTOR 1/4W 3.9K	1	
R3515		ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R3518		ERDS2TJ272	C.RESISTOR 1/4W 2.7K	1	
R4001		ERDS2TJ100	C.RESISTOR 1/4W 10	1	
R4002,03		ERDS2TJ183	C.RESISTOR 1/4W 18K	2	
R4004		ERDS2TJ562	C.RESISTOR 1/4W 5.6K	1	
R4005		ERDS2TJ220	C.RESISTOR 1/4W 22	1	
R4006		ERDS2TJ182	C.RESISTOR 1/4W 1.8K	1	
R4007		ERDS2TJ221	C.RESISTOR 1/4W 220	1	
R4008		ERDS2TJ122	C.RESISTOR 1/4W 1.2K	1	
R4009		ERDS2TJ333	C.RESISTOR 1/4W 33K	1	
R4011		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R4012		ERDS2TJ683	C.RESISTOR 1/4W 68K	1	
R4013		ERDS2TJ334	C.RESISTOR 1/4W 330K	1	
R4014,15		ERDS2TJ682	C.RESISTOR 1/4W 6.8K	2	
R4016		ERDS2TJ822	C.RESISTOR 1/4W 8.2K	1	
R4017		ERDS2TJ331	C.RESISTOR 1/4W 330	1	

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R4019		ERDS2TJ363	C.RESISTOR 1/4W 36K	1	
R4020		ERDS2TJ472	C.RESISTOR 1/4W 4.7K	1	
R4021		ERDS2TJ105	C.RESISTOR 1/4W 1000K	1	
R4022		ERDS2TJ223	C.RESISTOR 1/4W 22K	1	
R4023		ERDS2TJ272	C.RESISTOR 1/4W 2.7K	1	
R4024,25		EROS2CKG1003	M.RESISTOR 1/4W 100K	2	
R4026		EROS2CKG4702	M.RESISTOR 1/4W 47K	1	
R4027		ERDS2TJ104	C.RESISTOR 1/4W 100K	1	
R4028		ERDS2TJ333	C.RESISTOR 1/4W 33K	1	
R4029		ERDS2TJ681	C.RESISTOR 1/4W 680	1	
R4031		EROS2CKG2701	M.RESISTOR 1/4W 2.7K	1	
R4032		EROS2CKG6201	M.RESISTOR 1/4W 6.2K	1	
R4036		ERDS2TJ822	C.RESISTOR 1/4W 8.2K	1	
R4037		ERDS2TJ272	C.RESISTOR 1/4W 2.7K	1	
R6001		ERDS2TJ153	C.RESISTOR 1/4W 15K	1	
R6002		ERDS2TJ223	C.RESISTOR 1/4W 22K	1	
R6003		ERDS2TJ222	C.RESISTOR 1/4W 2.2K	1	
R6004		ERDS2TJ821	C.RESISTOR 1/4W 820	1	
R6008		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R6009		ERDS2TJ104	C.RESISTOR 1/4W 100K	1	
R6011		ERDS2TJ153	C.RESISTOR 1/4W 15K	1	
R6012,13		ERDS2TJ473	C.RESISTOR 1/4W 47K	2	
R6014		ERDS2TJ563	C.RESISTOR 1/4W 56K	1	
R6015		ERDS2TJ562	C.RESISTOR 1/4W 5.6K	1	
R6023		ERDS2TJ123	C.RESISTOR 1/4W 12K	1	
R6024		ERDS2TJ153	C.RESISTOR 1/4W 15K	1	
R6025		ERDS2TJ562	C.RESISTOR 1/4W 5.6K	1	
R6026		ERDS2TJ332	C.RESISTOR 1/4W 3.3K	1	
R6027		ERDS2TJ223	C.RESISTOR 1/4W 22K	1	
R6028		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R6029		ERDS2TJ561	C.RESISTOR 1/4W 560	1	
R6030		ERDS2TJ181	C.RESISTOR 1/4W 180	1	
R6031,32		ERDS2TJ103	C.RESISTOR 1/4W 10K	2	
R6034		ERDS2TJ223	C.RESISTOR 1/4W 22K	1	
R6037		ERDS2TJ222	C.RESISTOR 1/4W 2.2K	1	
R8003		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R8004		ERDS2TJ473	C.RESISTOR 1/4W 47K	1	
R8005		ERDS2TJ333	C.RESISTOR 1/4W 33K	1	
R8006		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R8007		ERDS2TJ393	C.RESISTOR 1/4W 39K	1	
R8008		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R8009		ERDS2TJ473	C.RESISTOR 1/4W 47K	1	
R8012		ERDS2TJ393	C.RESISTOR 1/4W 39K	1	
R8013		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R8014		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
			SWITCHES		
SW3501		VSS0224	SWITCH	1	
SW3502		VSS0225	SWITCH	1	
			TRANSFORMER		
T851		ELM7Q207A	TRANSFORMER	1	
T4001		EIQ7QF014Q	TRANSFORMER	1	
			VARIABLE RESISTORS		
VR301		EVN3ACA00B14	V.RESISTOR 10K	1	
VR2006		EVND4AA00B25	V.RESISTOR 200K	1	
VR2011		EVND4AA00B25	V.RESISTOR 200K	1	
VR2013		EVND4AA00B23	V.RESISTOR 2K	1	
VR2020-22		EVND4AA00B25	V.RESISTOR 200K	3	
VR3003		EVND4AA00B53	V.RESISTOR 5K	1	
VR3012,13		EVND4AA00B52	V.RESISTOR 500	2	
VR3501-03		EVN58AA00B25	V.RESISTOR 200K	3	
VR4002		EVND4AA00B25	V.RESISTOR 200K	1	
VR8001		EVND4AA00B13	V.RESISTOR 1K	1	
VR8008		EVND4AA00B53	V.RESISTOR 5K	1	
VR8010		EVND4AA00B13	V.RESISTOR 1K	1	
VR2001N		EVND4AA00B54	V.RESISTOR 50K	1	
VR2001P		EVND4AA00B54	V.RESISTOR 50K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			CRYSTAL OSCILLATORS		
X301		VSX0225	CRYSTAL OSCILLATOR	1	
X801		VSX0162A	CRYSTAL OSCILLATOR	1	
X3501		VSX0099	CRYSTAL OSCILLATOR	1	
X6001		VSQ0565	BUZZER	1	
			MISCELLANEOUS		
		VMC0075	HEAT SINK FIX SPRING	1	FOR IC2001
		VSC1689	HEAT SINK	1	FOR IC2001
		VSC1068	HEAT SINK	1	FOR Q6003
		VKC0329	HINGE	1	SERVO & SYSCON C.B.A.
		VKC0247	HINGE	1	
		VJF0553	C.B.A. SUPPORT	1	SERVO & SYSCON C.B.A.
		VEJ0699	REAR JACK	1	
	■	VEP06461A	SERVO & SYSTEM CONTROL		(NLA)
			C.B.A.		INCLUDING THE
					SUB SERVO PACK C.B.A.
					(VEP02319A).
			CONNECTOR		
BP4002		VJP1253	CONNECTOR (MALE)	1	
			CAPACITORS		
C249		ECCF1H101JC	C.CAPACITOR 50V 100P	1	
C250		ECCF1H181JC	C.CAPACITOR 50V 180P	1	
C251		ECCF1H150JC	C.CAPACITOR 50V 15P	1	
C252		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C253		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C254		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C6501		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C6502		VCYD1C473MR1	S.CAPACITOR 16V 0.047U	1	
C6503		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C6504		ECUM1H562KBN	CHIP 50V 5600P	1	
C6505		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C6507		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C6509		ECQV1H224JZ	P.CAPACITOR 50V 0.22U	1	
C6510		ECQV1H474JZ	P.CAPACITOR 50V 0.47U	1	
C6512		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C6513		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C6514		ECQB1H472JH	P.CAPACITOR 50V 4700P	1	
C6515		ECQB1H332JH	P.CAPACITOR 50V 3300P	1	
C6516		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C6517		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C6518		ECUM1H472KBN	CHIP 50V 4700P	1	
C6519		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C6521		ECEA1CKN100	E.CAPACITOR 16V 10U	1	
C6522		VCYD1C473MR1	S.CAPACITOR 16V 0.047U	1	
C6523		ECUM1H562KBN	CHIP 50V 5600P	1	
C6524		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C6525		ECQB1H223JH	P.CAPACITOR 50V 0.022U	1	
C6526		ECEA1HK4R7	E.CAPACITOR 50V 4.7U	1	
C6527		ECEA0JK101	E.CAPACITOR 6.3V 100U	1	
C6528		ECEA0JK221	E.CAPACITOR 6.3V 220U	1	
C6529		ECEA16Z10	E.CAPACITOR 16V 10U	1	
C6530		ECEA1HKN2R2	E.CAPACITOR 50V 2.2U	1	
C6531		VCYD1C473MR1	S.CAPACITOR 16V 0.047U	1	
C6532		ECEA1HKN2R2	E.CAPACITOR 50V 2.2U	1	
C6534		ECQV1H683JZ	P.CAPACITOR 50V 0.068U	1	
C6537		ECEA1CK330	E.CAPACITOR 16V 33U	1	
C6538		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C6539		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C6540		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C6541		ECUM1H1032FN	CHIP 50V 0.01U	1	
C6544		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C6545		ECEA0JK221	E.CAPACITOR 6.3V 220U	1	
C6546		ECEA25Z6R8	E.CAPACITOR 25V 6.8U	1	
C6547,48		ECUM1H271KBN	CHIP 50V 270P	2	
C6549		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C6550		ECUM1H332KBN	CHIP 50V 3300P	1	
C6551		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C6552		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
			DIODES		
D6501,02		1SS254	DIODE	2	
D6505-10		1SS254	DIODE	6	
D6511		ERA15-01	DIODE	1	
D6512-18		1SS254	DIODE	7	
D7520		1SS254	DIODE	1	
D6521		MA165	DIODE	1	
			INTEGRATED CIRCUITS		
IC6501		AN6562	IC	1	
IC6502		AN6914	IC	1	
IC6503		MN6740VCZK	IC	1	
IC6504		MN1280R	IC	1	
IC6505		AN6914	IC	1	
			CONNECTORS		
JP6501		VJS2154W	CONNECTOR (FEMALE)	1	
JP6502		VJS2156W	CONNECTOR (FEMALE)	1	
JP6503,04		VJS2157W	CONNECTOR (FEMALE)	2	
JP6506		VJS2149W	CONNECTOR (FEMALE)	1	
JP6508		VJS2157W	CONNECTOR (FEMALE)	1	
			COIL		
L202		VLQEL05F101K	COIL 100UH	1	
L6501		VLQEL07F222J	COIL 2200UH	1	
			CONNECTORS		
P6505		VJS1229T	CONNECTOR (FEMALE)	1	
P6507		VJP1232T	CONNECTOR (MALE) 5P	1	
			TRANSISTORS		
Q207		2SC2206	TRANSISTOR	1	
Q6501,02		2SC2021M	TRANSISTOR	2	
Q6506		2SD893	TRANSISTOR	1	
Q6507		2SD973	TRANSISTOR	1	
Q6508		2SD638	TRANSISTOR	1	
Q6509		2SB790	TRANSISTOR	1	(R,S)
Q6510		2SB790	TRANSISTOR	1	(R,S)
Q6511,12		2SA937M	TRANSISTOR	2	
			COMBINATION PARTS		
			(TRANSISTOR & RESISTROS)		
QR6501		2SD1676	COMBINATION PARTS	1	
QR6503		DTC144EA	TRANSISTOR-RESISTOR	1	OR UN1213
QR6507		DTA114EA	TRANSISTOR-RESISTOR	1	
QR6508		DTC144EA	TRANSISTOR-RESISTOR	1	OR UN1213
QR6509		DTA144EA	TRANSISTOR-RESISTOR	1	
QR6510		DTA114EA	TRANSISTOR-RESISTOR	1	
QR6511,12		DTC144EA	TRANSISTOR-RESISTOR	2	OR UN1213

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			RESISTORS		
R262		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R263		ERDS2TJ182	C.RESISTOR 1/4W 1.8K	1	
R264		ERDS2TJ333	C.RESISTOR 1/4W 33K	1	
R265		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R6501		ERJ6GMYJ824	CHIP 1/16W 820K	1	
R6502		ERJ6GMYJ392	CHIP 1/16W 3.9K	1	
R6503		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R6504		ERJ6GMYJ393	CHIP 1/16W 39K	1	
R6505		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R6506		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R6507		ERJ6GMYJ221	CHIP 1/16W 220	1	
R6508		ERJ6GMYJ824	CHIP 1/16W 820K	1	
R6509		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R6510,11		ERJ6GMYJ103	CHIP 1/16W 10K	2	
R6512,13		ERJ6GMYJ473	CHIP 1/16W 47K	2	
R6514		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R6515		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R6516		ERJ6GMYJ824	CHIP 1/16W 820K	1	
R6519		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R6522		ERJ6GMYG682	CHIP 1/16W 6.8K	1	
R6523		ERJ6GMYJ154	CHIP 1/16W 150K	1	
R6524		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R6525,26		ERJ6GMYJ223	CHIP 1/16W 22K	2	
R6527		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R6528		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R6529		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R6530		ERJ6GMYJ393	CHIP 1/16W 39K	1	
R6531		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R6532		ERJ6GMYJ824	CHIP 1/16W 820K	1	
R6533		ERJ6GMYJ392	CHIP 1/16W 3.9K	1	
R6534		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R6535		ERJ6GMYJ221	CHIP 1/16W 220	1	
R6536,37		ERJ6GMYJ223	CHIP 1/16W 22K	2	
R6538		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R6539		ERJ6GMYJ821	CHIP 1/16W 820	1	
R6540		ERJ6GMYJ221	CHIP 1/16W 220	1	
R6547		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R6548		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R6549		ERJ6GMYJ123	CHIP 1/16W 12K	1	
R6550-52		ERJ6GMYJ101	CHIP 1/16W 100	3	
R6553		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R6554		ERJ6GMYJ392	CHIP 1/16W 3.9K	1	
R6555		ERJ6GMYJ182	CHIP 1/16W 1.8K	1	
R6556		ERJ6GMYJ561	CHIP 1/16W 560	1	
R6557,58		ERJ6GMYJ153	CHIP 1/16W 15K	2	
R6559		ERJ6GMYJ122	CHIP 1/16W 1.2K	1	
R6560,61		ERJ6GMYJ333	CHIP 1/16W 33K	2	
R6562		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R6563		ERJ6GMYJ683	CHIP 1/16W 68K	1	
R6564		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R6565		ERJ6GMYJ271	CHIP 1/16W 270	1	
R6566		ERJ6GMYJ121	M.RESISTOR CH1/16W 120	1	
R6567		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R6568		ERG2SJ180	M.RESISTOR 2W 18	1	
R6569		ERJ6GMYJ391	CHIP 1/16W 390	1	
R6570		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R6571		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R6572,73		ERJ6GMYJ471	CHIP 1/16W 470	2	
R6574		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R6575		ERJ6GMYJ271	CHIP 1/16W 270	1	
R6576		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R6577		ERJ6GMYJ824	CHIP 1/16W 820K	1	
R6578		ERJ6GMYJ105	CHIP 1/16W 1M	1	
R6579		ERJ6GMYJ221	CHIP 1/16W 220	1	
R6580		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R6581		ERD2FCG220	C.RESISTOR 2W 22	1	
R6582		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R6583		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R6584		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R6585		ERJ6GMYJ153	CHIP 1/16W 15K	1	
R6586,87		ERJ6GMYJ222	CHIP 1/16W 2.2K	2	
R6588		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R6589		ERJ6GMYJ154	CHIP 1/16W 150K	1	

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R6590		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R6591,92		ERJ6GMYJ561	CHIP 1/16W 560	2	
R6593		ERJ6GMYJ221	CHIP 1/16W 220	1	
R6594		ERJ6GMYJ124	CHIP 1/16W 120K	1	
R6595		ERJ6GMYJ221	CHIP 1/16W 220	1	
R6596		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R6597		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R6598		ERJ6GMYJ221	CHIP 1/16W 220	1	
			CRYSTAL OSCILLATOR		
X201		VSX0244	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VJR0227	PACK PIN	1	
	■	VEP08124B	SUB CHROMINANCE C.B.A.		(NLA)
			CAPACITORS		
C8501		ECCF1H220JC	C.CAPACITOR 50V 22P	1	
C8502		ECCF1H080DC	C.CAPACITOR 50V 8P	1	
C8503		ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
C8504		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C8505		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C8506		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C8507		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C8508		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C8509		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C8510		ECKF1H471KB	C.CAPACITOR 50V 470P	1	
C8511		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C8512		ECQV1H224JZ	P.CAPACITOR 50V 0.22U	1	
C8513,14		ECKF1H271KB	C.CAPACITOR 50V 270P	2	
C8515		ECQV1H474JZ	P.CAPACITOR 50V 0.47U	1	
C8516		ECKF1H471KB	C.CAPACITOR 50V 470P	1	
C8517		ECEA0JK101	E.CAPACITOR 6.3V 100U	1	
C8518		ECEA0JS221	E.CAPACITOR 6.3V 220U	1	
C8547		ECCF1H151JC	C.CAPACITOR 50V 150P	1	
			DIODES		
D8501,02		1SS254	DIODE	2	
			DELAY LINE		
DL8501		VLD0071	DELAY LINE	1	
			FILTERS		
FL8501		VLF0295	FILTER	1	
FL8502		VLF0330	FILTER	1	
			INTEGRATED CIRCUIT		
IC8503		VEFH04B	HIC	1	
			COILS		
L8501		VLQEL05F470K	COIL 47UH	1	
L8502		VLQEL05F101K	COIL 100UH	1	
L8504		VLQEL05F331K	COIL 330UH	1	
L8505		VLQEL05F221K	COIL 220UH	1	
L8506		VLQEL05F180K	COIL 18UH	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
L8507,08		VLQEL05F101K	COIL 100UH	2	
			CONNECTORS		
P8501		VJP1236T	CONNECTOR (MALE) 9P	1	
P8502		VJP1235T	CONNECTOR (MALE) 8P	1	
			TRANSISTORS		
Q8501,02		2SD636	TRANSISTOR	2	
Q8503		2SB641	TRANSISTOR	1	
Q8511		2SB641	TRANSISTOR	1	
			RESISTORS		
R8501		ERDS2TJ682	C.RESISTOR 1/4W 6.8K	1	
R8502		ERDS2TJ392	C.RESISTOR 1/4W 3.9K	1	
R8503		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R8504		ERDS2TJ822	C.RESISTOR 1/4W 8.2K	1	
R8505		ERDS2TJ222	C.RESISTOR 1/4W 2.2K	1	
R8506		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R8507		ERDS2TJ273	C.RESISTOR 1/4W 27K	1	
R8508		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R8509		ERDS2TJ333	C.RESISTOR 1/4W 33K	1	
R8510		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R8511		ERDS2TJ393	C.RESISTOR 1/4W 39K	1	
R8512		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R8513		ERDS2TJ182	C.RESISTOR 1/4W 1.8K	1	
R8514		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R8515		ERDS2TJ271	C.RESISTOR 1/4W 270	1	
R8516		ERDS2TJ122	C.RESISTOR 1/4W 1.2K	1	
R8553		ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R8561		ERDS2TJ222	C.RESISTOR 1/4W 2.2K	1	
R8562,63		ERDS2TJ471	C.RESISTOR 1/4W 470	2	
			CRYSTAL OSCILLATOR		
X8501		VSX0160	CRYSTAL OSCILLATOR	1	
	■	VEP03490C	0.32H SKEW C.B.A.		(NLA)
			CAPACITORS		
C3801		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C3802		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C3803		ECEA1CK101	E.CAPACITOR 16V 100U	1	
C3804		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C3805		ECCF1H470JC	C.CAPACITOR 50V 47P	1	
C3806		ECCF1H560JC	C.CAPACITOR 50V 56P	1	
C3807		ECCF1H270JC	C.CAPACITOR 50V 27P	1	
C3808		ECCF1H680JC	C.CAPACITOR 50V 68P	1	
C3809		ECCF1H080CC	C.CAPACITOR 50V 8P	1	
C3810		ECCF1H180JC	C.CAPACITOR 50V 18P	1	
C3811		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C3812,13		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	2	
C3814		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C3815,16		ECEA1HK010	E.CAPACITOR 50V 1U	2	
C3817		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C3818		ECEA1CK330	E.CAPACITOR 16V 33U	1	
C3819		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C3820		ECEA1CK330	E.CAPACITOR 16V 33U	1	
C3821		ECKF1H1032F	C.CAPACITOR 50V 0.01U	1	
C3822,23		ECCF1H820JC	C.CAPACITOR 50V 82P	2	
C3824-26		ECKF1H1032F	C.CAPACITOR 50V 0.01U	3	
C3827		ECCF1H100DC	C.CAPACITOR 50V 10P	1	
C3828		ECCF1H101JC	C.CAPACITOR 50V 100P	1	
C3829		ECEA1HK010	E.CAPACITOR 50V 1U	1	

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C3830		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C3831		ECEA1CK101	E.CAPACITOR 16V 100U	1	
			DIODES		
D3801		RD10EB1	DIODE	1	
D3802-04		1SS254	DIODE	3	
			INTEGRATED CIRCUITS		
IC3801		BA7021	IC	1	
IC3802		TL8705P	IC	1	
			COILS		
L3801		VLQEL05F101K	COIL 100UH	1	
L3802		VLQEL05F560K	COIL 56UH	1	
L3803		VLQEL05F470K	COIL 47UH	1	
L3804		VLQEL05F150K	COIL 15UH	1	
L3805		VLQEL05F270K	COIL 27UH	1	
L3806,07		VLQEL05F101K	COIL 100UH	2	
L3808,09		VLQEL05F330K	COIL 33UH	2	
L3810		VLQEL05F101K	COIL 100UH	1	
L3811		VLQEL05F680J	COIL 68UH	1	
L3812		VLQEL05F100J	COIL 10UH	1	
			CONNECTOR		
P3801		VJP1236T	CONNECTOR (MALE) 9P	1	
			TRANSISTORS		
Q3801		2SD636	TRANSISTOR	1	
Q3802		2SB643	TRANSISTOR	1	
Q3803		2SC2206	TRANSISTOR	1	
Q3804		2SB641	TRANSISTOR	1	
Q3805		2SC2206	TRANSISTOR	1	
			RESISTORS		
R3802		ERDS2TJ121	C.RESISTOR 1/4W 120	1	
R3803		ERDS2TJ272	C.RESISTOR 1/4W 2.7K	1	
R3804		ERDS2TJ273	C.RESISTOR 1/4W 27K	1	
R3805		ERDS2TJ122	C.RESISTOR 1/4W 1.2K	1	
R3806		ERDS2TJ271	C.RESISTOR 1/4W 270	1	
R3807		ERTD2ZHL333S	THERMISTOR 33K	1	
R3808		ERDS2TJ122	C.RESISTOR 1/4W 1.2K	1	
R3809		ERDS2TJ392	C.RESISTOR 1/4W 3.9K	1	
R3810		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R3811		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R3812		ERDS2TJ221	C.RESISTOR 1/4W 220	1	
R3813		ERDS2TJ222	C.RESISTOR 1/4W 2.2K	1	
R3814		ERDS2TJ681	C.RESISTOR 1/4W 680	1	
R3815		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R3816		ERDS2TJ822	C.RESISTOR 1/4W 8.2K	1	
R3817		ERDS2TJ821	C.RESISTOR 1/4W 820	1	
R3818		ERDS2TJ182	C.RESISTOR 1/4W 1.8K	1	
R3819		ERD2FCG390	C.RESISTOR 1/4W 39	1	
R3821		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
			VARIABLE RESISTORS		
VR3801		EVND1AA00B13	V.RESISTOR 1K	1	
VR3802		EVND1AA00B23	V.RESISTOR 2K	1	
			CRYSTAL OSCILIATOR		
X3801		VSX0173	CRYSTAL OSCILIATOR	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			MISCELLANEOUS		
		VMZ1261	BARRIER	1	
	■	VEP05113G	HEAD AMP C.B.A.		(NLA)
			CAPACITORS		
C501		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C502		ECUM1H820JCN	CHIP 50V 82P	1	
C503		ECUM1H181JCN	C.CAPACITOR CH 50V 180P	1	
C504		ECUM1H270JCN	CHIP 50V 27P	1	
C505		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C506		ECUM1E473ZFN	CHIP 25V 0.047U	1	
C507		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C509		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C510,11		ECUM1E104ZFN	CHIP 25V 0.1U	2	
C513		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C514		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C515		ECUM1H102KBN	CHIP 50V 1000P	1	
C516		ECUM1H150JCN	CHIP 50V 15P	1	
C517		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C518,19		ECEA1CK100	E.CAPACITOR 16V 10U	2	
C520		ECUM1H150JCN	CHIP 50V 15P	1	
C521,22		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C523		ECUM1H150JCN	CHIP 50V 15P	1	
C524		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C526		ECUM1E104ZFN	CHIP 25V 0.1U	1	
C527		ECUM1H102KBN	CHIP 50V 1000P	1	
C528,29		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C530		ECUM1E473ZFN	CHIP 25V 0.047U	1	
C531		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C533		ECUM1H560JCN	CHIP 50V 56P	1	
C534		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C536		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C537		ECUM1H150JCN	CHIP 50V 15P	1	
C538		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C539		ECUM1H103ZFN	CHIP 50V 0.01U	1	
			INTEGRATED CIRCUITS		
IC501		AN3224K	IC	1	
IC502		AN3311S	IC	1	
			COILS		
L501		VLQEL05F101K	COIL 100UH	1	
L502		VLQEL05F820K	COIL 82UH	1	
L503		VLQEL05F151K	COIL 150UH	1	
L505		VLQEL05F101K	COIL 100UH	1	
L507		VLQEL05F270K	COIL 27UH	1	
			CONNECTORS		
P002		VJS1927	CONNECTOR (FEMALE)	1	
P501		VJP1248T	CONNECTOR (MALE) 8P	1	
P502		VJP1237T	CONNECTOR (MALE) 10P	1	
			TRANSISTOR		
Q501		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
			RESISTORS		

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R501		ERJ6GMYJ561	CHIP 1/16W 560	1	
R502		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R503		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R504		ERJ6GMYJ331	CHIP 1/16W 330	1	
R506		ERJ6GMYJ471	CHIP 1/16W 470	1	
R507		ERJ6GMYJ472	CHIP 1/16W 4.7K	1	
R508,09		ERJ6GMYJ100	CHIP 1/16W 10	2	
R510		ERJ6GMYJ561	CHIP 1/16W 560	1	
R511,12		ERJ6GMYJ821	CHIP 1/16W 820	2	
R515		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R516		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R517		ERJ6GMYJ391	CHIP 1/16W 390	1	
R519,20		ERJ6GMYJ100	CHIP 1/16W 10	2	
R522		ERJ6GMYJ561	CHIP 1/16W 560	1	
R524		ERJ6GMYJ334	CHIP 1/16W 330K	1	
R526		ERJ6GMYJ223	CHIP 1/16W 22K	1	
			VARIABLE RESISTIR		
VR501		EVND1AA00B23	V.RESISTOR 2K	1	
			MISCELLANEOUS		
		VSC1834	SHIELD CASE (BOTTOM)	1	
		VSC2204	SHIELD CASE (TOP)	1	
		VSC2205	SHIELD CASE (MAIN)	1	
	■	VEP07438C	TIMER C.B.A.		(NLA)
					INCLUDING THE
					IR RECEIVER C.B.A.
					(VEP06380E).
			CAPACITORS		
C6701		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C6702		ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
C6703		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C6704		ECEA1HK3R3	E.CAPACITOR 50V 3.3U	1	
C7501		ECRHA030E41	TRIMER 30P	1	
C7502		ECUM1H050DCN	CHIP 50V 5P	1	
C7504		ECEA0JK221	E.CAPACITOR 6.3V 220U	1	
C7505,06		ECUM1H220JCN	CHIP 50V 22P	2	
C7507		ECEA1HK100	E.CAPACITOR 50V 10U	1	
C7508		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C7509		ECUM1H331KBN	CHIP 50V 330P	1	
C7510		ECUX1H104ZFN	CHIP 50V 0.1U	1	
C7511		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C7520		ECEA1HKR22	E.CAPACITOR 50V 0.22U	1	
C7521		ECUM1H102KBN	CHIP 50V 1000P	1	
C7522,23		ECUM1H561KBN	CHIP 50V 560P	2	
C7524		ECUM1H680JCN	CHIP 50V 68P	1	
C7525-28		ECUM1H271KBN	CHIP 50V 270P	4	
			DIODES		
D6701		PN323B	PHOTO DIODE	1	
D7501		FRA15-01	DIODE	1	
D7502		1SS254	DIODE	1	
D7503		MA4056	DIODE	1	
D7506-14		1SS254	DIODE	9	
D7520		1SS254	DIODE	1	
D7523,24		1SS254	DIODE	2	
D7531		1SS254	DIODE	1	
D7535,36		1SS254	DIODE	2	
D7542		LN28RCPP	LED	1	
D7543		LN48YCPP	LED	1	
D7544		LN38GCPP	LED	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			DISPLAY TUBE		
DP7501		VSL0119	DISPLAY TUBE	1	
			INTEGRATED CIRCUITS		
IC6701		UPC1490HA	IC	1	
IC7501		M50935V4AC	IC	1	
IC7502		MN1226	IC	1	
IC7503		MN1280P	IC	1	
IC7505		MN1280T	IC	1	
			COIL		
L7501		VLQEL05F221K	COIL 220UH	1	
			CONNECTORS		
P7501		VJP1251T	CONNECTOR (MALE) 11P	1	
P7504		VJS1937	CONNECTOR (FEMALE)	1	
P7505		VJP1393T	CONNECTOR (MALE) 13P	1	
P7506		VJP1251T	CONNECTOR (MALE) 11P	1	
			TRANSISTOR		
Q7501		2SD601	TRANSISTOR CHIP	1	
			COMBINATION PARTS		
			(TRANSISTOR & RESISTIRS)		
QR7501		DTA124EK	TRANSISTOR-RESISTOR	1	
QR7509		DTA144EK	TRANSISTOR-RESISTOR	1	
QR7510,11		DTC144EK	TRANSISTOR-RESISTOR	2	
QR7521-23		DTC144TK	TRANSISTOR-RESISTOR	3	
QR7526		DTC114EK	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R6701		ERDS2TJ154	C.RESISTOR 1/4W 150K	1	
R6702		ERDS2TJ8R2	C.RESISTOR 1/4W 8.2	1	
R7501		ERJ6GMYJ122	CHIP 1/16W 1.2K	1	
R7502		ERJ6GMYJ224	CHIP 1/16W 220K	1	
R7503		ERJ6GMYJ105	CHIP 1/16W 1M	1	
R7504		ERJ6GMYK106	CHIP 1/16W 10M	1	
R7505		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R7506,07		ERJ6GMYJ222	CHIP 1/16W 2.2K	2	
R7509		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R7510		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R7511-14		ERJ6GMYJ103	CHIP 1/16W 10K	4	
R7515		ERJ6GMYJ101	CHIP 1/16W 100	1	
R7519		ERJ6GMYJ104	CHIP 1/16W 100K	1	
R7520-23		ERJ6GMYJ103	CHIP 1/16W 10K	4	
R7524-31		ERJ6GMYJ182	CHIP 1/16W 1.8K	8	
R7532		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R7533		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R7534		ERJ6GMYJ121	M.RESISTOR CH1/16W 120	1	
R7535		ERDS1TJ220	C.RESISTOR 1/2W 22	1	
R7536		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R7543		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R7545		ERJ6GMYJ221	CHIP 1/16W 220	1	
R7546		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R7547		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R7548,49		ERJ6GMYJ473	CHIP 1/16W 47K	2	
R7550		ERJ6GMYJ561	CHIP 1/16W 560	1	
			SWITCH		
SW7540		VSP0307	SWITCH	1	

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			VARIABLE RESISTOR		
VR6701		EVMLGGA00B15	V.RESISTOR 100K	1	
			CRYSTAL OSCILLATORS		
X7501		VSX0140A	CRYSTAL OSCILLATOR	1	
X7502		VSX0094A	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VMD1047	LED HOLDER	4	FOR D7542,D7543,
					D7544,D7545
		VJF0548	FIP HOLDER	1	
		VSC1844	SHIELD CASE (TOP)	1	FOR IR RECEIVER
		VSC1928	SHIELD CASE (BOTTOM)	1	FOR IR RECEIVER
		VSC1929	SHIELD CASE (MAIN)	1	FOR IR RECEIVER
	■	VEP06462A	OPERATION C.B.A.		(NLA)
			DIODES		
D6801		LN38GCPPSVT	LED	1	
D6802		LN28RCPP	LED	1	
D6803,04		1SS254	DIODE	2	
			CONNECTORS		
P6801		VJF0171T	CONNECTOR	1	
P6801		VJP1394T	CONNECTOR (MALE)	1	
P7505		VJF0171T	CONNECTOR	1	
			RESISTORS		
R6801		ERDS2TJ181	C.RESISTOR 1/4W 180	1	
R6802		ERDS2TJ331	C.RESISTOR 1/4W 330	1	
R6803		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
			SWITCHES		
SW6801-04		EVQQS307K	SWITCH	4	
SW6805,06		ESD14314	SWITCH	2	
			VARIABLE RESISTIR		
VR6801		EVUJ16E04B24	V.RESISTOR 20K	1	
			MISCELLANEOUS		
		VMD1047	LED HOLDER	1	FOR D6801,D6802
		VGU3364	SW KNOB	1	
	■	VEP07459C	RF UNIT C.B.A.		(NLA)
					INCLUDING THE
					CH SELECT C.B.A.
					(VEP07423C).
			CAPACITORS		

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C701		ECEA1CK220	E.CAPACITOR 16V 22U	1	
C702		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C703		ECUM1H150JRN	C.CAPACITOR CH 50V 15P	1	
C704		ECUM1H270JCN	CHIP 50V 27P	1	
C705		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C706		ECQV1H823JZ	P.CAPACITOR 50V 0.082U	1	
C707		ECEA1CK220	E.CAPACITOR 16V 22U	1	
C708		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C709		ECEA1CK220	E.CAPACITOR 16V 22U	1	
C710		ECUM1H050CCN	C.CAPACITOR CH 50V 5P	1	
C711		ECUM1H020CCN	CHIP 50V 2P	1	
C712		ECUM1H390JRN	C.CAPACITOR CH 50V 39P	1	
C713-16		ECUM1H103ZFN	CHIP 50V 0.01U	4	
C717		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C719		ECEA1HK0R1	E.CAPACITOR 50V 0.1U	1	
C720		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C721		ECEA1HKNR47	E.CAPACITOR 50V 0.47U	1	
C722		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C723		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C724		ECQB1H153JH	P.CAPACITOR 50V 0.015U	1	
C725		ECQB1H333JH	P.CAPACITOR 50V 0.033U	1	
C726		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C727		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C728		ECUM1H102ZFN	C.CAPACITOR CH 50V 1000P	1	
C729		ECUM1H561KCN	C.CAPACITOR CH 50V 560P	1	
C730		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C731		ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C732		ECUM1H680JLN	C.CAPACITOR CH 50V 68P	1	
C733		ECUM1H330JPN	C.CAPACITOR CH 50V 33P	1	
C734		ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C735		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C736		ECUM1H220JCN	CHIP 50V 22P	1	
C737		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C739		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C759		ECUM1H100DCN	CHIP 50V 10P	1	
C760		ECUM1H121JPN	C.CAPACITOR CH 50V 120P	1	
C761,62		ECQB1H103JH	P.CAPACITOR 50V 0.01U	2	
C763		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C764		ECUM1H101JCN	CHIP 50V 100P	1	
C765		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C766		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C767		ECQB1H123JH	P.CAPACITOR 50V 0.012U	1	
C768		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C769		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C770		ECUM1H560JPN	C.CAPACITOR CH 50V 56P	1	
C771		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C775		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C776		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C778		ECUM1H680JCN	CHIP 50V 68P	1	
C780		ECUM1H220JCN	CHIP 50V 22P	1	
C781		ECUM1H471JCN	C.CAPACITOR CH 50V 470P	1	
C784		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C786		ECQB1H682JH	P.CAPACITOR 50V 6800P	1	
C787		ECEA1CKN220	E.CAPACITOR 16V 22U	1	
C788		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C791		ECEA1EKN4R7	E.CAPACITOR 25V 4.7U	1	
C792		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C793		ECUM1H330JCN	CHIP 50V 33P	1	
C794		ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C796		ECUM1H151JCN	CHIP 50V 150P	1	
C799		ECEA1CK220	E.CAPACITOR 16V 22U	1	
C7551		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C7552		ECQV1H683JZ	P.CAPACITOR 50V 0.068U	1	
C7553		ECQV1H823JZ	P.CAPACITOR 50V 0.082U	1	
C7554		ECQB1H273JH	P.CAPACITOR 50V 0.027U	1	
C7555,56		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C7557		ECEA1HK100	E.CAPACITOR 50V 10U	1	
C7558		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C7559		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C7560,61		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C7563		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C7564		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C7565		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C7569		ECEA1HKN010	E.CAPACITOR 50V 1U	1	

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			DIODES		
D701,02		MA856	DIODE	2	
D706		MA165	DIODE	1	
D707		RD9.1JB2	DIODE	1	
D709		MA165	DIODE	1	
D710		MA29W	DIODE	1	
D711		MA3100L	DIODE	1	
D714,15		MA165	DIODE	2	
D717		MA856	DIODE	1	
D7554		MA165	DIODE	1	
			INTEGRATED CIRCUITS		
IC701		M51419SP	IC	1	
IC702		VCR0244	IC	1	
IC705		UPC1167C2	IC	1	
IC7551		AN5043	IC	1	
			CONNECTORS		
JP701		VJS2151W	CONNECTOR (FEMALE)	1	
JP702		VJS2152W	CONNECTOR (FEMALE)	1	
			COILS		
L701,02		VLQEL05F151K	COIL 150UH	2	
L703		VLQEL05F680K	COIL 68UH	1	
L704,05		ELQT1R0KB	COIL 1UH	2	
L707		VLQEL05F680K	COIL 68UH	1	
L708		VLQEL05F100K	COIL 10UH	1	
L709		VLQEL05F8R2K	COIL 8.2UH	1	
L710,11		VLQEL05F151K	COIL 150UH	2	
L715		VLQEL05F680K	COIL 68UH	1	
L716,17		VLQEL05F820K	COIL 82UH	2	
L719		VLQEL05F180K	COIL 18UH	1	
L720		VLQEL05F220K	COIL 22UH	1	
L721		ELQTR47XB	COIL	1	
L722		VLQEL05F270K	COIL 27UH	1	
L725		VLQEL05F151K	COIL 150UH	1	
			CONNECTORS		
P7501		VJS1238T	CONNECTOR	1	
P7551		VJP1251T	CONNECTOR (MALE) 11P	1	
P7551		VJS1238T	CONNECTOR	1	
			PACK PINS		
PK7551		VJR0189	PACK PIN	1	
PK7552		VJR0188	PACK PIN	1	
			TRANSISTORS		
Q701		2SC1047	TRANSISTOR	1	(C)
Q702		2SD601	TRANSISTOR CHIP	1	
Q703		2SD601	TRANSISTOR	1	(S,T)
Q705		2SD638	TRANSISTOR	1	
Q706		2SD601	TRANSISTOR CHIP	1	
Q707		2SD636	TRANSISTOR	1	(Q,R,S,T)
Q712		2SC2404	TRANSISTOR CHIP	1	(C,D)
			COMBINATION PARTS		
			(TRANSISTOR & RESISTORS)		
QR701		UN2211	TRANSISTOR-RESISTOR	1	
QR702		UN2212	TRANSISTOR-RESISTOR	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
QR704		UN2213	TRANSISTOR-RESISTOR	1	
QR709		UN2211	TRANSISTOR-RESISTOR	1	
QR710,11		UN2213	TRANSISTOR-RESISTOR	2	
			RESISTORS		
R701		ERJ6GEYJ331	CHIP 1/16W 330	1	
R702		ERJ6GEYJ681	CHIP 1/16W 680	1	
R703		ERJ6GEYJ682	CHIP 1/16W 6.8K	1	
R704		ERD2FCG330	C.RESISTOR 2W 33	1	
R705		ERJ6GEYJ181	CHIP 1/16W 180	1	
R706		ERJ6GEYJ271	CHIP 1/16W 270	1	
R707		ERJ6GEYJ152	CHIP 1/16W 1.5K	1	
R708		ERDS2TJ332	C.RESISTOR 1/4W 3.3K	1	
R709		ERJ6GEYJ222	CHIP 1/16W 2.2K	1	
R710		ERJ6GEYJ684	CHIP 1/16W 680K	1	
R711,12		ERJ6GEYJ562	CHIP 1/16W 5.6K	2	
R713		ERJ6GEYJ751	CHIP 1/16W 750	1	
R714		ERJ6GEYJ331	CHIP 1/16W 330	1	
R715		ERDS2TJ274	C.RESISTOR 1/4W 270K	1	
R716		ERJ6GEYJ334	CHIP 1/16W 330K	1	
R717		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R718		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R719		ERDS2TJ392	C.RESISTOR 1/4W 3.9K	1	
R720		ERDS2TJ472	C.RESISTOR 1/4W 4.7K	1	
R721		ERJ6GEYJ682	CHIP 1/16W 6.8K	1	
R722		ERJ6GEYJ152	CHIP 1/16W 1.5K	1	
R723		ERJ6GEYJ223	CHIP 1/16W 22K	1	
R724		ERJ6GEYJ332	CHIP 1/16W 3.3K	1	
R725		ERJ6GEYJ151	CHIP 1/16W 150	1	
R726		ERJ6GEYJ182	CHIP 1/16W 1.8K	1	
R728		ERJ6GEYJ181	CHIP 1/16W 180	1	
R729		ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R730		ERJ6GEYJ184	CHIP 1/16W 180K	1	
R731		ERDS2TJ331	C.RESISTOR 1/4W 330	1	
R732		ERJ6GEYJ274	CHIP 1/16W 270K	1	
R733		ERDS2TJ181	C.RESISTOR 1/4W 180	1	
R734		ERJ6GEYJ562	CHIP 1/16W 5.6K	1	
R735		ERJ6GEYJ102	CHIP 1/16W 1K	1	
R737		ERJ6GEYJ102	CHIP 1/16W 1K	1	
R738		ERJ6GEYJ182	CHIP 1/16W 1.8K	1	
R739		ERJ6GEYJ222	CHIP 1/16W 2.2K	1	
R752		ERJ6GEYJ123	CHIP 1/16W 12K	1	
R753		ERJ6GEYJ272	CHIP 1/16W 2.7K	1	
R754		ERJ6GEYJ333	CHIP 1/16W 33K	1	
R755		ERJ6GEYJ103	CHIP 1/16W 10K	1	
R756		ERJ6GEYJ182	CHIP 1/16W 1.8K	1	
R757		ERJ6GEYJ102	CHIP 1/16W 1K	1	
R758		ERJ6GEYJ103	CHIP 1/16W 10K	1	
R759		ERJ6GEYJ102	CHIP 1/16W 1K	1	
R765		ERD2FCG220	C.RESISTOR 2W 22	1	
R766		ERJ6GEYJ821	CHIP 1/16W 820	1	
R767		ERJ6GEYJ822	CHIP 1/16W 8.2K	1	
R770		ERJ6GEYJ183	CHIP 1/16W 180K	1	
R773		ERJ6GEYJ562	CHIP 1/16W 5.6K	1	
R774		ERJ6GEYJ682	CHIP 1/16W 6.8K	1	
R775		ERJ6GEYJ391	CHIP 1/16W 390	1	
R776		ERJ6GEYJ681	CHIP 1/16W 680	1	
R777		ERJ6GEYJ473	CHIP 1/16W 47K	1	
R778		ERJ6GEYJ222	CHIP 1/16W 2.2K	1	
R779		ERJ6GEYJ103	CHIP 1/16W 10K	1	
R780		ERJ6GEYJ333	CHIP 1/16W 33K	1	
R781		ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R782		ERJ6GEYJ103	CHIP 1/16W 10K	1	
R788		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R790		ERJ6GEYJ473	CHIP 1/16W 47K	1	
R793		ERJ6GEYJ183	CHIP 1/16W 180K	1	
R795		ERJ6GEYJ182	CHIP 1/16W 1.8K	1	
R796		ERJ6GEYJ102	CHIP 1/16W 1K	1	
R797		ERJ6GEYJ561	CHIP 1/16W 560	1	
R798		ERDS2TJ750	C.RESISTOR 1/4W 75	1	
R799		ERJ6GEYJ103	CHIP 1/16W 10K	1	
R7551,52		ERJ6GEYJ473	CHIP 1/16W 47K	2	
R7553		ERJ6GEYJ104	CHIP 1/16W 100K	1	

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R7554		ERJ6GEYJ124	CHIP 1/16W 120K	1	
R7555		ERJ6GEYJ103	CHIP 1/16W 10K	1	
R7556		ERG1SJ152	M.RESISTOR 1W 1.5K	1	
R7557		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R7569		ERJ6GEYJ332	CHIP 1/16W 3.3K	1	
R7570		ERJ6GEYJ223	CHIP 1/16W 22K	1	
R7571		ERDS2TJ100	C.RESISTOR 1/4W 10	1	
R7572		ERJ6GEYJ102	CHIP 1/16W 1K	1	
R7573		ERJ6GEYJ222	CHIP 1/16W 2.2K	1	
			TRANSFORMERS		
T702		EIV5EC008A	TRANSFORMER	1	
T703		EIV5EC023A	TRANSFORMER	1	
T704		EIV5EC006A	TRANSFORMER	1	
T706		EIS5EC011A	TRANSFORMER	1	
T707		EIS5EC005A	TRANSFORMER	1	
			VARIABLE RESISTORS		
VR701,02		EVND4AA00B23	V.RESISTOR 2K	2	
VR704		EVND4AA00B14	V.RESISTOR 10K	1	
VR706,07		EVND4AA00B14	V.RESISTOR 10K	2	
			CRYSTAL OSCILLATORS		
X701		EFCH38MMK1N	CRYSTAL OSCILLATOR	1	
X702		EFCS5M6MW3B	CRYSTAL OSCILLATOR	1	
X704		EFCS6M65MW3B	CRYSTAL OSCILLATOR	1	
X705		EFCA4R5MB3	CERAMIC FILTER 4.5MHZ	1	
X707		EFCS5R5MS4	CERAMIC FILTER 5.5MHZ	1	
X709		EFOA500KS5A	CRYSTAL OSCILLATOR	1	
X711		EFCA4R5MB3	CERAMIC FILTER 4.5MHZ	1	
			MISCELLANEOUS		
		VJF0374	C.B.A. HOLDER	1	
		VSC2233	SHIELD CASE (MAIN)	1	
		VSC2409	SHIELD CASE (TOP)	1	
		VSC2410	SHIELD CASE (BOTTOM)	1	
	■	VEP01310A	POWER C.B.A.		<!> (NLA)
					INCLUDING THE
					POWER INLET C.B.A.
					(VEP01311A).
			CAPACITORS		
C1002		ECQU2A683MN	P.CAPACITOR 100V 0.068U	1	
C1003		ECEA2DG010S	E.CAPACITOR 200V 1U	1	
C1004,05		VCC0016	.CAPACITOR 400V 100P	2	
C1006-08		VCC0021	.CAPACITOR 400V 470P	3	
C1009		ECOS2GU820B	E.CAPACITOR 400V 82U	1	
C1010		ECKD3D331KBN	C.CAPACITOR 2KV 330P	1	
C1011		ECQE6473MZ	P.CAPACITOR 630V 0.047U	1	
C1012		ECEA1CGE470	E.CAPACITOR 16V 47U	1	
C1013		ECEA1AGE470	E.CAPACITOR 10V 47U	1	
C1014		ECQB1H472KH	P.CAPACITOR 50V 4700P	1	
C1015		ECEA1HFS100	E.CAPACITOR 50V 10U	1	
C1016		ECQP1101T404	M.CAPACITOR 100V 100P	1	
C1017		ECEA1DFZ681Z	E.CAPACITOR 20V 680U	1	
C1018		ECEA1HGE100	E.CAPACITOR 50V 10U	1	
C1019		ECEA1AFZ331	E.CAPACITOR 10V 330U	1	
C1020		ECEA0JEE331	E.CAPACITOR 6.3V 330U	1	
C1021		ECEA1HGE101	E.CAPACITOR 50V 100U	1	
C1022		ECEA1DFZ681Z	E.CAPACITOR 20V 680U	1	
C1023-25		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	3	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C1026		ECEA1HGE100	E.CAPACITOR 50V 10U	1	
C1027		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C1028		ECEA1CGE100	E.CAPACITOR 16V 10U	1	
C1029		ECEA1AGE101	E.CAPACITOR 10V 100U	1	
C1030		ECQV1H473JZ	P.CAPACITOR 50V 0.047U	1	
C1033		ECEA1CGE101	E.CAPACITOR 16V 100U	1	
C1034		ECEA1AGE101	E.CAPACITOR 10V 100U	1	
			DIODES		
D1002		MA178	DIODE	1	
D1004		S1WBA60	DIODE	1	
D1005,06		MA178	DIODE	2	
D1007		11EFS4	DIODE	1	
D1008		RL42LF-M1	DIODE	1	
D1009		MA185	DIODE	1	
D1010		31DQ04A	DIODE	1	
D1011		AK04	DIODE	1	
D1012		MA2200B	DIODE	1	
D1013		MA4130L	DIODE	1	
D1014		VSD0002	DIODE	1	
D1015		AP01C	DIODE	1	
D1017		SV03YS	DIODE	1	
			INTEGRATED CIRCUIT		
IC1001		STK5339B	IC	1	
			COIL		
L1001		ELF18D290A	COIL	1	
L1002		ELC07D220	COIL 22U	1	
			CONNECTOR		
P1001		VJP1394T	CONNECTOR (MALE)	1	
			TRANSISTORS		
Q1001		STRD1806E	TRANSISTOR	1	
Q1003		2SD1275	TRANSISTOR	1	
Q1004		2SD1330	TRANSISTOR	1	
Q1005		2SD638	TRANSISTOR	1	
Q1006		2SD1330	TRANSISTOR	1	(S,T
			COMBINATION PARTS		
			(TRANSISTOR & RESISTIRS)		
QR1001		DTA143TV	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R1002,03		ERG2SJ333	M.RESISTOR 2W 33K	2	
R1004		ERW2PKR30T	WIRE WOUND 2W 0.3	1	
R1005,06		ERG1SJ104	M.RESISTOR 1W 100K	2	
R1007		ERDS2TJ100	C.RESISTOR 1/4W 10	1	
R1009,10		ERDS2TJ102	C.RESISTOR 1/4W 1K	2	
R1011		ERG2SJ820	M.RESISTOR 2W 82	1	
R1012		ERG3ANJ683	M.RESISTOR 3W 68K	1	
R1013		ERF2AK2R2	W.RESISTOR 2W 2.2	1	
R1014		ERDS2TJ153	C.RESISTOR 1/4W 15K	1	
R1015,16		ERDS2TJ102	C.RESISTOR 1/4W 1K	2	
R1017		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R1018		ERDS2TJ562	C.RESISTOR 1/4W 5.6K	1	
R1019		ERG12ANJ332	M.RESISTOR 1/2W 3.3K	1	
R1020		ERD25FAJ100	C.RESISTOR 1/4W 10	1	
R1021		ERX1SJR20	M.RESISTOR 1W 0.20	1	
R1023		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			TRANSFORMER		
T1001		VLT0521	TRANSFORMER	1	
			MISCELLANEOUS		
		VJS1972	AC INLET	1	<!>
		VJF0318	FUSE HOLDER	2	<!>
	■	VEP00K62A	CYLINDER DRIVE C.B.A.		(NLA)
			CAPACITORS		
C2901		ECEA1VSN2R2	E.CAPACITOR 35V 2.2U	1	
C2902		ECEA1VSN2R2	E.CAPACITOR 35V 2.2U	1	
C2903		ECEA1VSN2R2	E.CAPACITOR 35V 2.2U	1	
C2904		ECUM1E104KBM	CHIP 25V 0.1U	1	
C2905		ECUM1E104KBM	CHIP 25V 0.1U	1	
C2906		ECUM1E104KBM	CHIP 25V 0.1U	1	
C2907		ECQV1H823JS	P.CAPACITOR 50V 0.082U	1	
C2908		ECUM1E473KBM	CHIP 25V 0.47U	1	
C2909		ECUM1E104KBM	CHIP 25V 0.1U	1	
C2910		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C2911		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C2912		ECEA0JKS220	E.CAPACITOR 6.3V 22U	1	
			INTEGRATED CIRCUITS		
IC2901		AN3814K	IC	1	
			CONNECTORS		
P2901		VJP1232T	CONNECTOR	1	
P2902		VJP1927	CONNECTOR	1	
			RESISTOR		
R2901		ERX12ANJR68	M.RESISTOR 1/4W 0.68	1	
			MISCELLANEOUS		
		VSC1843	HEAT SINK	1	
		VMA6884	MAIN HOLDER	1	
	■	VEK3583	MECHANISM CONNECTION C.B.A.		(NLA)
			CONNECTORS		
P1504		VJS2342	CONNECTOR	1	
P1505		VJP1242T	CONNECTOR	1	
			RESISTORS		
R1501		ERDS2TJ223	C.RESISTOR 1/4W 22K	1	
R1502		ERDS2TJ223	C.RESISTOR 1/4W 22K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
	■	VEK3555	REEL SENSOR C.B.A.		(NLA)
			INTEGRATED CIRCUIT		
IC1501		ON2170	IC	1	
			CONNECTOR		
P1506		VJP1242T	CONNECTOR	1	
	■	VXA2689	LED C.B.A.		(NLA)
			DIODE		
D1501		GL450	PHOT DIODE	1	
			MISCELLANEOUS		
		VMD0911	LED HOLDER	1	
	■	VEK3577	TAKE UP PHOTO Tr. C.B.A.		(NLA)
			CAPACITOR		
C1502		ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
			CONNECTOR		
P1508		VJS2165	CONNECTOR	1	
			TRANSISTOR		
Q1502		PN150NV	TRANSISTOR	1	
			RESISTOR		
R1503		ERDS2TJ222	C.RESISTOR 1/4W 2.2K	1	
			MISCELLANEOUS		
		VMD0645	PHOTO Tr. HOLDER	1	
	■	VEK3578	SUPPLY PHOTO Tr. C.B.A.		(NLA)
			CAPACITOR		
C1501		ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
			TRANSISTOR		
Q1501		PN150NV	TRANSISTOR	1	
			MISCELLANEOUS		

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VMD0645	PHOTO Tr. HOLDER	1	
	■	VEP66038A	REMOTE CONTROLLER C.B.A.		(NLA)
			CAPACITORS		
C1		ECEA0GKS101	E.CAPACITOR 4V 100U	1	
C2		ECKF1H121KB	C.CAPACITOR 50V 120P	1	
C3		ECKF1H121KB	C.CAPACITOR 50V 120P	1	
C4		ECQB1H222KH	M.CAPACITOR 50V 2200P	1	
			DIODES		
D1		LN66S	LED	1	
D2-9		MA165	DIODE	8	
			INTEGRATED CIRCUIT		
IC1		MN6011M	IC	1	
			COMBINATION PARTS		
			(TRANSISTOR & RESISTORS)		
QR1		UN1231	TRANSISTOR-RESISTOR	1	
			RESISTOR		
R1		ERDS2TJ1R0	C.RESISTOR 1/4W 1	1	
			CRYSTAL OSCILLATOR		
X1		VSX0201	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VJR0374	ELECTRODE (+)	1	
		VJR0375	ELECTRODE (-)	1	
	■	VEP66033C	DIGITAL SCANNER C.B.A.		(NLA)
			CAPACITORS		
C01		ECEA1AKA470I	E.CAPACITOR 10V 470U	1	
C02		ECEA1HKN010I	E.CAPACITOR 50V 1U	1	
C03		ECUM1E104ZFM	C.CAPACITOR 25V 0.1U	1	
C04		ECUM1E104ZFM	C.CAPACITOR 25V 0.1U	1	
C05		ECEA1HK010I	E.CAPACITOR 50V 1U	1	
C06		ECEA1AKA470I	E.CAPACITOR 10V 47U	1	
C07		ECUM1H330JCN	C.CAPACITOR 50V 33U	1	
C08		ECUM1H330JCN	C.CAPACITOR 50V 33U	1	
C09		ECUM1H103ZFN	C.CAPACITOR 50V 0.01U	1	
			DIODES		
D01-04		MA151WK	DIODE	4	
D05		MA153	DIODE	1	
D06		SE303ACY	DIODE	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			INTEGRATED CIRCUIT		
IC01		UPD49HG891DP	IC	1	
IC02		UPC324G2	IC	1	
IC03		RC78L02UAA1	IC	1	
			COIL		
L01		ELT3K017B	COIL	1	
			TRANSISTORS		
Q01,02		2SB710	TRANSISTOR	2	(Q,R,S)
Q03		2SB709	TRANSISTOR	1	(Q,R,S)
Q04		2SD601	TRANSISTOR	1	(Q,R,S)
Q05		2SB709	TRANSISTOR	1	(Q,R,S)
			RESISTORS		
R01		ERJ6GMYJ560	CHIP 1/16W 56	1	
R02		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R03		ERJ6GMYJ153	CHIP 1/16W 15K	1	
R04		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R05		ERJ6GMYJ202	CHIP 1/16W 2K	1	
R06		ERJ6GMYJ244	CHIP 1/16W 240K	1	
R07		ERJ6GMYJ162	CHIP 1/16W 1.6K	1	
R10		ERJ6GMYK106	CHIP 1/16W 10M	1	
R11		ERJ6GMYJ105	CHIP 1/16W 1M	1	
R12		ERJ6GMYK106	CHIP 1/16W 10M	1	
R13		ERJ6GMYJ361	CHIP 1/16W 360	1	
R14		ERJ6GMYJ682	CHIP 1/16W 6.8K	1	
R15		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R16		ERJ6GMYJ682	CHIP 1/16W 6.8K	1	
R17		ERJ6GMYJ682	CHIP 1/16W 6.8K	1	
R18		ERJ8GCYJ120	CHIP 1/8W 12	1	
R20		ERJ6GMYJ104	CHIP 1/16W 100K	1	
R23		ERJ6GMYJ681	CHIP 1/16W 680	1	
R24		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R29		ERJ8GCYJ150	CHIP 1/8W 15	1	
			SENSOR		
SN1		VSQ0567	SENSOR	1	
			SWITCHES		
SW01		VSS0126	SLIDE SWITCH	1	
SW02		EVQQFV02K	SWITCH	1	
			VARIABLE RESISTOR		
VR09		EVND4KA00B25	V.RESISTOR 200K	1	
			CRYSTAL OSCILLATORS		
X01		VSX0224	CRYSTAL OSCILLATOR	1	
X02		EFBAL30D001K	BUZZER	1	
			MISCELLANEOUS		
		VGQ1406	TERMINAL BASE	1	
		VJR0401	TERMINAL ANGLE	1	
	■	ENC87794	RF CONVERTER		<!>

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			DIODES		
D1		MA1075	ZENER	1	
D2		MA166	DIODE	1	
D3		MA166	DIODE	1	
D4		MA166	DIODE	1	
D5		HSM276S	DIODE	1	
D6		MA166	DIODE	1	
D7		MA166	DIODE	1	
			INTEGRATED CIRCUIT		
IC1		LA7051	IC	1	
			TRANSISTORS		
Q1		2SC3130	TRANSISTOR	1	
Q2		2SC2570A	TRANSISTOR	1	
Q3		2SC2570A	TRANSISTOR	1	
			NOTE:		
			THE OTHER PARTS FOR		
			RF CONVERTER ARE NOT		
			AVAILABLE AS SPARE PARTS.		

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

3.NV-G300EM Electrical Replacement Parts List

Note:1.* Be sure to make your orders of replacement parts according to this list.
2.IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.
3.Unless otherwise specified,
All resistors are in OHMS ,K=1,000 OHMS. All capacitors are in MICRO-FARADS(uf),P=uuF.
4.The P.C.Board units marked width'■'show below the main assembled parts.
5.Printed circuit board assembly with mark(NLA) is no longer available after discontinuation of the product.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VEP03486B	MAIN C.B.A.	1	<!> (NLA)
			(SYSTEM CONTROL, SERVO,		INCLUDING THE
			LUMINANCE & CHROMINANCE,		LUMINANCE &
			AUDIO)		CHROMINANCE PACK
					C.B.A.(VEP03489A),
					SECAM PACK C.B.A.
					(VEP03452C),
					INPUT/OUTPUT PACK
					C.B.A.(VEP03487B),
					ARTIFICIAL PAL PACK
					C.B.A.(VEP03358A).
		VEP03489A	LUMINANCE & CHROMINANCE	1	(NLA)
			PACK C.B.A.		INCLUDING THE
					SECAM PACK C.B.A.
					(VEP03452C).
					INCLUDED IN MAIN
					C.B.A.(VEP03486B).
		VEP03452C	SECAM PACK C.B.A.	1	(NLA)
					INCLUDED IN MAIN
					C.B.A.(VEP03486B).
		VEP03487B	INPUT/OUTPUT PACK C.B.A.	1	(NLA)
					INCLUDED IN MAIN
					C.B.A.(VEP03486B).
		VEP03358A	ARTIFICIAL PAL PACK C.B.A.	1	(NLA)
					INCLUDED IN MAIN
					C.B.A.(VEP03486B).
		VEP06461B	SERVO & SYSTEM CONTROL	1	(NLA)
			C.B.A.		INCLUDING THE
					SUB SERVO PACK C.B.A.
					(VEP02319A).
		VEP02319A	SUB SERVO PACK C.B.A.	1	(NLA)
					INCLUDED IN SERVO &
					SYSTEM CONTROL C.B.A.
					(VEP06461B).
		VEP03490B	0.32H SKEW C.B.A.	1	(NLA)
		VEP05113F	HEAD AMP C.B.A.	1	(NLA)
		VEP07438B	TIMER C.B.A.	1	(NLA)
					INCLUDING THE
					IR RECEIVER C.B.A.
					(VEP06380E).
		VEP06380E	IR RECEIVER C.B.A.	1	(NLA)
					INCLUDED IN TIMER
					C.B.A.(VEP07438B).
		VEP06462B	OPERATION C.B.A.	1	(NLA)

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VEP07459B	RF UNIT C.B.A.	1	(NLA)
					INCLUDING THE
					CH SELECT C.B.A.
					(VEP07423C).
		VEP07423C	CH SELECT C.B.A.	1	(NLA)
					INCLUDED IN RF UNIT
					C.B.A.(VEP07459B).
		VEP01310A	POWER C.B.A.	1	<!> (NLA)
					INCLUDING THE
					POWER INLET C.B.A.
					(VEP01311A).
		VEP01311A	POWER INLET C.B.A.	1	<!> (NLA)
					INCLUDED IN POWER
					C.B.A.(VEP01310A).
		VEP00K62A	CYLINDER DRIVE C.B.A.	1	(NLA)
		VEK3583	MECHANISM CONNECTION C.B.A.	1	(NLA)
		VEK3555	REEL SENSOR C.B.A.	1	(NLA)
		VXA2689	LED C.B.A.	1	(NLA)
		VEK3577	TAKE UP PHOTO Tr. C.B.A.	1	(NLA)
		VEK3578	SUPPLY PHOTO Tr. C.B.A.	1	(NLA)
		VEP66038A	REMOTE CONTROLLER C.B.A.	1	(NLA)
		VEP66033C	DIGITAL SCANNER C.B.A.	1	(NLA)
		ENC87794	RF CONVERTER	1	<!>
		ENV59804F2	TUNER	1	<!>
F1001		XBA2C16TB0	FUSE 250V 1.6A	1	<!>
	■	VEP03486B	MAIN C.B.A.		<!> (NLA)
			(SYSTEM CONTROL, SERVO,		INCLUDING THE
			LUMINANCE & CHROMINANCE,		LUMINANCE &
			AUDIO)		CHROMINANCE PACK
					C.B.A.(VEP03489A),
					SECAM PACK C.B.A.
					(VEP03452C),
					INPUT/OUTPUT PACK
					C.B.A.(VEP03487B),
					ARTIFICIAL PAL PACK
					C.B.A.(VEP03358A).
			CONNECTORS		
BP1101		VJP1396	CONNECTOR (MALE)	1	
BP3001		VJP1808	CONNECTOR (MALE)	1	

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
BP3002		VJP1257	CONNECTOR (MALE)	1	
BP3003		VJP1260	CONNECTOR (MALE)	1	
BP3010		VJP1254	CONNECTOR (MALE)	1	
BP7402		VJP1262	CONNECTOR (MALE)	1	
			CAPACITORS		
C301		ECUM1H390JCN	C.CAPACITOR CH 50V 39P	1	
C302		ECUM1H820JCN	CHIP 50V 82P	1	
C303		ECUM1H470JCN	CHIP 50V 47P	1	
C304		ECEA1AK470	E.CAPACITOR 10V 47U	1	
C305		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C306		ECUM1H220JCN	CHIP 50V 22P	1	
C307		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C308		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C309		ECUM1H220JCN	CHIP 50V 22P	1	
C310		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C311		ECUM1H560JCN	CHIP 50V 56P	1	
C312,13		ECUM1H180JCN	CHIP 50V 18P	2	
C314		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C315		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C316		ECQB1H562JH	P.CAPACITOR 50V 5600P	1	
C317		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C318		ECEA1EKN2R2	E.CAPACITOR 25V 2.2U	1	
C319		ECEA1EKA220	E.CAPACITOR 25V 22U	1	
C320		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C321		ECEA0JU331	E.CAPACITOR 6.3V 330U	1	
C322		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C323		ECUM1H470JCN	CHIP 50V 47P	1	
C324		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C325		ECUM1H560JCN	CHIP 50V 56P	1	
C326		ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C327		ECUM1H820JCN	CHIP 50V 82P	1	
C328		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C329		ECUM1H680JCN	CHIP 50V 68P	1	
C330		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C331		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C332		ECUM1H270JCN	CHIP 50V 27P	1	
C333		ECUM1H101JCN	CHIP 50V 100P	1	
C334		ECUM1H680JCN	CHIP 50V 68P	1	
C335		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C336		ECEA1HK4R7	E.CAPACITOR 50V 4.7U	1	
C337		ECQV1H334JZ	P.CAPACITOR 50V 0.33U	1	
C338-40		ECUM1H103ZFN	CHIP 50V 0.01U	3	
C341,42		ECEA1CK100	E.CAPACITOR 16V 10U	2	
C343,44		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C345		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C801		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C802		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C803		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C804		ECEA25Z4R7	E.CAPACITOR 25V 4.7U	1	
C805		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C806		ECEA0JU221	ELECTROLYTIC 6.3V 220U	1	
C807		ECUM1H050CCN	CHIP 50V 5P	1	
C808		ECUM1H102KBN	CHIP 50V 1000P	1	
C809		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C811		ECUM1H471KBN	CHIP 50V 470P	1	
C812		ECUM1H270JCN	CHIP 50V 27P	1	
C813		ECUM1H101JCN	CHIP 50V 100P	1	
C814		ECUM1H820JCN	CHIP 50V 82P	1	
C815		ECUM1H681KBN	C.CAPACITOR CH 50V 680P	1	
C816		ECQV1H154JZ	P.CAPACITOR 50V 0.15U	1	
C817		ECEA0JK101	E.CAPACITOR 6.3V 100U	1	
C818		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C819		ECQV1H474JZ	P.CAPACITOR 50V 0.47U	1	
C820,21		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C822		ECQV1H274JZ	P.CAPACITOR 50V 0.27U	1	
C823		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C824		ECUM1H471KBN	CHIP 50V 470P	1	
C851		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C852		ECEA1CK330	E.CAPACITOR 16V 33U	1	
C853		ECEA10Z47	E.CAPACITOR 10V 47U	1	
C854		ECQV1H563JZ	P.CAPACITOR 50V 0.056U	1	
C855		ECEA1CK330	E.CAPACITOR 16V 33U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C856		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C2001-03		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	3	
C2004-06		ECQB1H333JH	P.CAPACITOR 50V 0.033U	3	
C2007-09		ECKF1H332KB	C.CAPACITOR 50V 3300P	3	
C2010,11		ECQB1H223JH	P.CAPACITOR 50V 0.022U	2	
C2012		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C2014		ECEA25Z47	E.CAPACITOR 25V 47U	1	
C2015		ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
C2016		ECEA1CK101	E.CAPACITOR 16V 100U	1	
C2017		ECKF1H821KB	C.CAPACITOR 50V 820P	1	
C3014,15		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	2	
C3016		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C3017		ECKF1H392KB	C.CAPACITOR 50V 3900P	1	
C3018		ECCF1H470JC	C.CAPACITOR 50V 47P	1	
C3019		ECCF1H330JC	C.CAPACITOR 50V 33P	1	
C3020		ECCF1H181JC	C.CAPACITOR 50V 180P	1	
C3021		ECCF1H220JC	C.CAPACITOR 50V 22P	1	
C3022		ECCF1H151JC	C.CAPACITOR 50V 150P	1	
C3023		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C3024		ECCF1H330JC	C.CAPACITOR 50V 33P	1	
C3025		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C3026		ECCF1H220JC	C.CAPACITOR 50V 22P	1	
C3027		ECKF1H681KB	C.CAPACITOR 50V 680P	1	
C3028		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C3029		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C3030		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C3033		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C3034		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C3035		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C3501,02		ECEA1CK100	E.CAPACITOR 16V 10U	2	
C3503,04		VCYD1E332KR	S.CAPACITOR 25V 3300P	2	
C3505		ECEA0JU471	E.CAPACITOR 6.3V 470U	1	
C3506		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C3507		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C3508		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C4001		ECQP1332JZ	M.CAPACITOR 100V 3300P	1	
C4002		ECCD2H121K	C.CAPACITOR 500V 120P	1	
C4003		ECEA16Z33	E.CAPACITOR 16V 33U	1	
C4004		ECKF1H102ZF	C.CAPACITOR 50V 1000P	1	
C4005		ECQB1H153JH	P.CAPACITOR 50V 0.015U	1	
C4006		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C4007		ECEA1CK330	E.CAPACITOR 16V 33U	1	
C4008		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C4009		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C4010		ECQB1H123JH	P.CAPACITOR 50V 0.012U	1	
C4012		ECQB1H183JH	P.CAPACITOR 50V 0.018U	1	
C4013		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C4014		ECCF1H121JC	C.CAPACITOR 50V 120P	1	
C4015		ECKF1H331KB	C.CAPACITOR 50V 330P	1	
C4016		ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
C4017		ECEA1CKL100	E.CAPACITOR 16V 10U	1	
C4018		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C4019		ECEA16Z47	E.CAPACITOR 16V 47U	1	
C4020		ECQB1H122JH	P.CAPACITOR 50V 1200P	1	
C4021		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C4022,23		ECKF1H102KB	C.CAPACITOR 50V 1000P	2	
C4024		ECEA1AK101	E.CAPACITOR 10V 100U	1	
C4025		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C4026		ECCF1H101JC	C.CAPACITOR 50V 100P	1	
C4027		ECCF1H221JC	C.CAPACITOR 50V 220P	1	
C4028		ECCF1H101JC	C.CAPACITOR 50V 100P	1	
C4029		ECKF1H471KB	C.CAPACITOR 50V 470P	1	
C4033		ECQB1H222JH	P.CAPACITOR 50V 2200P	1	
C6007		ECKF1H562KB	C.CAPACITOR 50V 5600P	1	
C6008		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C6011		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C6013		ECKF1H103KB	C.CAPACITOR 50V 0.01U	1	
C6014		ECEA1EK100	E.CAPACITOR 25V 10U	1	
C6015		ECEA1CU101	E.CAPACITOR 16V 100U	1	
C6016		ECEA0JU221	E.CAPACITOR 6.3V 220U	1	
C6017		EECS5R5V105	TRIMMER	1	
C6020		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C6021		ECEA1HU101B	E.CAPACITOR 50V 100U	1	
C6022		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C6031		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C6035		ECEA1AFS221	E.CAPACITOR 10V 220U	1	
C6036		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C8001		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C8002		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C8005		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C8008		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C8009		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C8010		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C8701,02		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	2	
C8703		ECCF1H221JC	C.CAPACITOR 50V 220P	1	
C8704		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C8705		ECCF1H101JC	C.CAPACITOR 50V 100P	1	
C8706		ECCF1H560JC	C.CAPACITOR 50V 56P	1	
C8707-09		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	3	
C8710		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C8711,12		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	2	
C8713		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C8714		ECEA1AK470	E.CAPACITOR 10V 47U	1	
C8715		ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
			DIODES		
D301		MA4091	DIODE	1	
D801		1SS254	DIODE	1	
D2001		1SS254	DIODE	1	
D3001		1SS254	DIODE	1	
D3501-05		1SS254	DIODE	5	
D3507		1SS254	DIODE	1	
D3510		1SS254	DIODE	1	
D3511		MA27W	DIODE	1	
D4001		1SS254	DIODE	1	
D4002		AK04	DIODE	1	
D4003-05		1SS254	DIODE	3	
D6001-03		1SS254	DIODE	3	
D6006		1SS254	DIODE	1	
D6009-11		1SS254	DIODE	3	
D6013		1SS254	DIODE	1	
D6016		1SS254	DIODE	1	
D6019		MA4140M	DIODE	1	
D6020		MA4110M	DIODE	1	
D6021-30		1SS254	DIODE	10	
D6031		ERA15-01	DIODE	1	
D6032		1SS254	DIODE	1	
D6035		1SS254	DIODE	1	
D6038		MA4056L	DIODE	1	
D6039,40		1SS254	DIODE	2	
D6050		MA165	DIODE	1	
D6053,54		1SS254	DIODE	2	
			DELAY LINES		
DL801		EFDVR645A45A	DELAY LINE	1	
DL802		EFDHR124A13S	DELAY LINE	1	
			FILTERS		
FL301		VLF0499	FILTER	1	
FL302		ELB4M022	FILTER	1	
FL303		VLF0567	FILTER	1	
FL801		EFCS5R06MS4V	CERAMIC FILTER 5.06MHZ	1	
FL802		VLF0299	FILTER	1	
FL851		EFCS4R5MS4C	FILTER	1	
FL3501		ELB4H020	FILTER	1	
			INTEGRATED CIRCUITS		
IC301		VEFH03D	HIC	1	
IC302		MSM6965-3RS	IC	1	
IC801		VEFH04A	HIC	1	
IC851		BA7025L	IC	1	
IC2001		BA6432S	IC	1	
IC3002		AN3396	IC	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
IC3501		BA7004	IC	1	
IC4001		BA7766AS	IC	1	
IC6001		BU3761S	IC	1	
IC6003		MC74HC08N	IC	1	
IC8701		UPD4053BC	IC	1	
IC8702		UPD4013BC	IC	1	
			CONNECTORS		
JP7001		VJS2151W	CONNECTOR (FEMALE)	1	
JP7002		VJS2152W	CONNECTOR (FEMALE)	1	
JP7401		VJS2159W	CONNECTOR (FEMALE)	1	
			PACK PIN		
KR851		VJR0163	PACK PIN	1	
			COILS		
L301		VLQEL05F121K	COIL 120UH	1	
L302		VLQEL05F680K	COIL 68UH	1	
L303,04		VLQEL05F101K	COIL 100UH	2	
L305		VLQEL05F220K	COIL 22UH	1	
L306		VLQEL05F2R2K	COIL 2.2UH	1	
L307		VLQEL05F220K	COIL 22UH	1	
L308-10		VLQEL05F101K	COIL 100UH	3	
L801		VLQEL05F101K	COIL 100UH	1	
L802		VLQEL05F470K	COIL 47UH	1	
L803		VLQEL05F151K	COIL 150UH	1	
L804		VLQEL05F270K	COIL 27UH	1	
L805		VLQEL05F331K	COIL 330UH	1	
L806		VLQEL05F681K	COIL 680UH	1	
L807		VLQEL05F470K	COIL 47UH	1	
L808		VLQEL05F101K	COIL 100UH	1	
L810,11		VLQEL05F150K	COIL 15UH	2	
L812		VLQEL05F681K	COIL 680UH	1	
L813		VLQEL05F150K	COIL 15UH	1	
L851		VLQEL05F101K	COIL 100UH	1	
L2001		VLQEL05F102K	COIL 1mH	1	
L3005		VLQEL05F101K	COIL 100UH	1	
L3006		VLQEL05F4R7K	COIL 4.7UH	1	
L3007		VLQEL05F6R8K	COIL 6.8UH	1	
L3008		VLQEL05F120K	COIL 12UH	1	
L3009,10		VLQEL05F101K	COIL 100UH	2	
L3011		VLQEL05F3R3K	COIL 3.3UH	1	
L3501-03		VLQEL05F101K	COIL 100UH	3	
L4001		VLQEL05F471K	COIL 470UH	1	
L4002		VLQ0317	COIL	1	
L6003,04		VLQEL05F100K	COIL 10UH	2	
L8001,02		VLQEL05F101K	COIL 100UH	2	
L8701		VLQEL05F101K	COIL 100UH	1	
			CONNECTORS		
P501		VJS1741T	CONNECTOR (FEMALE)	1	
P502		VJS1235T	CONNECTOR (FEMALE)	1	
P1001		VJF0171T	CONNECTOR	1	
P1102		VJP1148	CONNECTOR (MALE)	1	
P1102		VJS1141	CONNECTOR (FEMALE)	1	
P2001		VJP1932T	CONNECTOR (MALE)	1	
P3501		VJS1236T	CONNECTOR (FEMALE)	1	
P3901		VJS1230T	CONNECTOR (FEMALE)	1	
P4001		VJP1233T	CONNECTOR (MALE) 6P	1	
P4002		VJP1229T	CONNECTOR (MALE) 2P	1	
P7506		VJS1238T	CONNECTOR	1	
			PACK PINS		
PK301		VJR0128	PACK PIN	1	
PK302		VJR0161	PACK PIN	1	

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
PK303		VJR0129	PACK PIN	1	
PK304		VJR0130	PACK PIN	1	
			CONNECTORS		
PP3001		VJP1862	CONNECTOR (MALE)	1	
PP3002		VJP1861	CONNECTOR (MALE)	1	
			CONNECTORS		
PS3501		VJS1862	CONNECTOR (FEMALE)	1	
PS3502		VJS1861	CONNECTOR (FEMALE)	1	
			TRANSISTORS		
Q301		2SC1009A	TRANSISTOR	1	
Q302		2SA812	TRANSISTOR	1	
Q303,04		2SC1009A	TRANSISTOR	2	
Q802		2SA812	TRANSISTOR	1	
Q803,04		2SC1623	TRANSISTOR	2	
Q3010,11		2SD636	TRANSISTOR	2	
Q3012		2SC2206	TRANSISTOR	1	
Q3014		2SD636	TRANSISTOR	1	
Q3501		2SD636	TRANSISTOR	1	
Q3502		2SB641	TRANSISTOR	1	
Q4001		2SD638	TRANSISTOR	1	(R)
Q6003		2SD1275	TRANSISTOR	1	
Q6004		2SD636	TRANSISTOR	1	
Q6008		2SB641	TRANSISTOR	1	
Q8002		2SD636	TRANSISTOR	1	
Q8005		2SD636	TRANSISTOR	1	
Q8701		2SD636	TRANSISTOR	1	
Q8702		2SC2206	TRANSISTOR	1	
Q8703		2SD636	TRANSISTOR	1	
Q8704		2SC2206	TRANSISTOR	1	
Q8705-07		2SD636	TRANSISTOR	3	
			COMBINATION PARTS		
			(TRANSISTOR & RESISTORS)		
QR301		DTC124EK	TRANSISTOR-RESISTOR	1	
QR302		DTC114YA	TRANSISTOR-RESISTOR	1	
QR303		DTC114YK	TRANSISTOR-RESISTOR	1	
QR304		DTC124EK	TRANSISTOR-RESISTOR	1	
QR305		DTC144EK	TRANSISTOR-RESISTOR	1	
QR306		DTC124EK	TRANSISTOR-RESISTOR	1	
QR801		DTC124EK	TRANSISTOR-RESISTOR	1	
QR802		DTC144EK	TRANSISTOR-RESISTOR	1	
QR803		DTC114YK	TRANSISTOR-RESISTOR	1	
QR3001		DTC124EA	TRANSISTOR-RESISTOR	1	
QR3002,03		2SD1676	COMBINATION PARTS	2	
QR3004		DTC114EA	TRANSISTOR-RESISTOR	1	
QR3005		DTC124EA	TRANSISTOR-RESISTOR	1	
QR3501		DTC114YA	TRANSISTOR-RESISTOR	1	
QR3503		DTC114YA	TRANSISTOR-RESISTOR	1	
QR4001,02		2SD1676	COMBINATION PARTS	2	
QR6001		DTC144EA	TRANSISTOR-RESISTOR	1	OR UN1213
QR6002		DTA114EA	TRANSISTOR-RESISTOR	1	
QR6003		DTC124EA	TRANSISTOR-RESISTOR	1	
QR6004		DTC144EA	TRANSISTOR-RESISTOR	1	OR UN1213
QR6005		DTA144EA	TRANSISTOR-RESISTOR	1	
QR6011		DTC144EA	TRANSISTOR-RESISTOR	1	OR UN1213
QR6012		DTC124EA	TRANSISTOR-RESISTOR	1	
QR6013		DTA114YA	TRANSISTOR-RESISTOR	1	
QR6014		DTA114EA	TRANSISTOR-RESISTOR	1	
QR6015		DTA144EA	TRANSISTOR-RESISTOR	1	
QR6016,17		DTA114EA	TRANSISTOR-RESISTOR	2	
QR6018		DTC114YA	TRANSISTOR-RESISTOR	1	
QR6020		DTA144EA	TRANSISTOR-RESISTOR	1	
QR6022		DTC144WA	TRANSISTOR-RESISTOR	1	
QR6023		DTA144EA	TRANSISTOR-RESISTOR	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
QR6024		DTC144EA	TRANSISTOR-RESISTOR	1	OR UN1213
			RESISTORS		
R301		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R302		ERJ6GMYJ472	CHIP 1/16W 4.7K	1	
R303		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R304		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R305		ERJ6GMYJ822	CHIP 1/16W 8.2K	1	
R306		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R307		ERJ6GMYJ392	CHIP 1/16W 3.9K	1	
R308		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R309		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R310		ERJ6GMYJ123	CHIP 1/16W 12K	1	
R311		ERJ6GMYJ474	M.RESISTOR CH1/16W 470K	1	
R312		ERJ6GMYJ104	CHIP 1/16W 100K	1	
R314		ERJ6GMYJ101	CHIP 1/16W 100	1	
R315		ERJ6GMYJ391	CHIP 1/16W 390	1	
R316		ERJ6GMYJ331	CHIP 1/16W 330	1	
R317		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R318		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R319		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R320		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R321		ERJ6GMYJ122	CHIP 1/16W 1.2K	1	
R322		ERJ6GMYJ681	CHIP 1/16W 680	1	
R323		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R324		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R325		ERJ6GMYJ683	CHIP 1/16W 68K	1	
R326		ERJ6GMYJ183	CHIP 1/16W 18K	1	
R327		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R328		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R329		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R330		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R331		ERJ6GMYJ151	CHIP 1/16W 150	1	
R332		ERJ6GMYJ822	CHIP 1/16W 8.2K	1	
R333		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R334		ERJ6GMYJ824	CHIP 1/16W 820K	1	
R801		ERJ6GMYJ182	CHIP 1/16W 1.8K	1	
R802		ERJ6GMYJ822	CHIP 1/16W 8.2K	1	
R803		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R804		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R805		ERJ6GMYJ182	CHIP 1/16W 1.8K	1	
R807		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R808		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R809		ERJ6GMYJ822	CHIP 1/16W 8.2K	1	
R810		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R811		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R812		ERJ6GMYJ471	CHIP 1/16W 470	1	
R813		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R814		ERJ6GMYJ221	CHIP 1/16W 220	1	
R815		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R816		ERJ6GMYJ333	CHIP 1/16W 33K	1	
R817		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R818		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R819		ERJ6GMYJ393	CHIP 1/16W 39K	1	
R820		ERJ6GMYJ122	CHIP 1/16W 1.2K	1	
R821,22		ERJ6GMYJ271	CHIP 1/16W 270	2	
R823		ERJ6GMYJ122	CHIP 1/16W 1.2K	1	
R824		ERJ6GMYJ681	CHIP 1/16W 680	1	
R851		ERDS2TJ223	C.RESISTOR 1/4W 22K	1	
R852		ERDS2TJ390	C.RESISTOR 1/4W 39	1	
R853		ERDS2TJ154	C.RESISTOR 1/4W 150K	1	
R854		ERDS2TJ222	C.RESISTOR 1/4W 2.2K	1	
R855		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R856		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R2001-03		ERDS2TJ560	C.RESISTOR 1/4W 56	3	
R2004		ERDS2TJ330	C.RESISTOR 1/4W 33	1	
R2005		ERX12SJ1R0	M.RESISTOR 1/2W 1	1	
R2006		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R2007		EROS2CKG1201	M.RESISTOR 1/4W 1.2K	1	
R2008		ERDS2TJ472	C.RESISTOR 1/4W 4.7K	1	
R2009		ERDS2TJ682	C.RESISTOR 1/4W 6.8K	1	
R2010		ERDS2TJ473	C.RESISTOR 1/4W 47K	1	
R3021		ERDS2TJ750	C.RESISTOR 1/4W 75	1	

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R3024		ERDS2TJ472	C.RESISTOR 1/4W 4.7K	1	
R3025		ERDS2TJ563	C.RESISTOR 1/4W 56K	1	
R3026		ERDS2TJ151	C.RESISTOR 1/4W 150	1	
R3027		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R3028		ERDS2TJ332	C.RESISTOR 1/4W 3.3K	1	
R3029,30		ERDS2TJ821	C.RESISTOR 1/4W 820	2	
R3032		ERDS2TJ222	C.RESISTOR 1/4W 2.2K	1	
R3033		ERDS2TJ332	C.RESISTOR 1/4W 3.3K	1	
R3034		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R3037		ERDS2TJ104	C.RESISTOR 1/4W 100K	1	
R3041		ERDS2TJ750	C.RESISTOR 1/4W 75	1	
R3501		ERDS2TJ272	C.RESISTOR 1/4W 27K	1	
R3502		ERDS2TJ122	C.RESISTOR 1/4W 1.2K	1	
R3503		ERDS2TJ272	C.RESISTOR 1/4W 2.7K	1	
R3504,05		ERDS2TJ750	C.RESISTOR 1/4W 75	2	
R3506		ERDS2TJ393	C.RESISTOR 1/4W 39K	1	
R3507		ERDS2TJ750	C.RESISTOR 1/4W 75	1	
R3508		ERDS2TJ223	C.RESISTOR 1/4W 22K	1	
R3509		ERDS2TJ152	C.RESISTOR 1/4W 1.5K	1	
R3510		ERDS2TJ561	C.RESISTOR 1/4W 560	1	
R3511,12		ERDS2TJ102	C.RESISTOR 1/4W 1K	2	
R3513		ERDS2TJ152	C.RESISTOR 1/4W 1.5K	1	
R3514		ERDS2TJ392	C.RESISTOR 1/4W 3.9K	1	
R3515		ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R4001		ERDS2TJ100	C.RESISTOR 1/4W 10	1	
R4002,03		ERDS2TJ183	C.RESISTOR 1/4W 18K	2	
R4004		ERDS2TJ562	C.RESISTOR 1/4W 5.6K	1	
R4005		ERDS2TJ220	C.RESISTOR 1/4W 22	1	
R4006		ERDS2TJ182	C.RESISTOR 1/4W 1.8K	1	
R4007		ERDS2TJ221	C.RESISTOR 1/4W 220	1	
R4008		ERDS2TJ122	C.RESISTOR 1/4W 1.2K	1	
R4009		ERDS2TJ333	C.RESISTOR 1/4W 33K	1	
R4011		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R4012		ERDS2TJ683	C.RESISTOR 1/4W 68K	1	
R4013		ERDS2TJ334	C.RESISTOR 1/4W 330K	1	
R4014,15		ERDS2TJ682	C.RESISTOR 1/4W 6.8K	2	
R4016		ERDS2TJ822	C.RESISTOR 1/4W 8.2K	1	
R4017		ERDS2TJ331	C.RESISTOR 1/4W 330	1	
R4019		ERDS2TJ363	C.RESISTOR 1/4W 36K	1	
R4020		ERDS2TJ472	C.RESISTOR 1/4W 4.7K	1	
R4021		ERDS2TJ105	C.RESISTOR 1/4W 1000K	1	
R4022		ERDS2TJ223	C.RESISTOR 1/4W 22K	1	
R4023		ERDS2TJ272	C.RESISTOR 1/4W 2.7K	1	
R4024,25		EROS2CKG1003	M.RESISTOR 1/4W 100K	2	
R4026		EROS2CKG4702	M.RESISTOR 1/4W 47K	1	
R4027		ERDS2TJ104	C.RESISTOR 1/4W 100K	1	
R4028		ERDS2TJ333	C.RESISTOR 1/4W 33K	1	
R4029		ERDS2TJ681	C.RESISTOR 1/4W 680	1	
R4031		EROS2CKG2701	M.RESISTOR 1/4W 2.7K	1	
R4032		EROS2CKG6201	M.RESISTOR 1/4W 6.2K	1	
R4036		ERDS2TJ822	C.RESISTOR 1/4W 8.2K	1	
R4037		ERDS2TJ272	C.RESISTOR 1/4W 2.7K	1	
R6001		ERDS2TJ153	C.RESISTOR 1/4W 15K	1	
R6002		ERDS2TJ223	C.RESISTOR 1/4W 22K	1	
R6004		ERDS2TJ821	C.RESISTOR 1/4W 820	1	
R6008		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R6009		ERDS2TJ104	C.RESISTOR 1/4W 100K	1	
R6011		ERDS2TJ153	C.RESISTOR 1/4W 15K	1	
R6012,13		ERDS2TJ473	C.RESISTOR 1/4W 47K	2	
R6014		ERDS2TJ563	C.RESISTOR 1/4W 56K	1	
R6015		ERDS2TJ562	C.RESISTOR 1/4W 5.6K	1	
R6021		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R6023		ERDS2TJ123	C.RESISTOR 1/4W 12K	1	
R6024		ERDS2TJ153	C.RESISTOR 1/4W 15K	1	
R6025		ERDS2TJ562	C.RESISTOR 1/4W 5.6K	1	
R6026		ERDS2TJ332	C.RESISTOR 1/4W 3.3K	1	
R6027		ERDS2TJ223	C.RESISTOR 1/4W 22K	1	
R6028		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R6029		ERDS2TJ561	C.RESISTOR 1/4W 560	1	
R6030		ERDS2TJ181	C.RESISTOR 1/4W 180	1	
R6031,32		ERDS2TJ103	C.RESISTOR 1/4W 10K	2	
R6034		ERDS2TJ223	C.RESISTOR 1/4W 22K	1	
R6037		ERDS2TJ222	C.RESISTOR 1/4W 2.2K	1	
R8005		ERDS2TJ333	C.RESISTOR 1/4W 33K	1	
R8006		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R8007		ERDS2TJ393	C.RESISTOR 1/4W 39K	1	
R8012		ERDS2TJ393	C.RESISTOR 1/4W 39K	1	
R8013		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R8014		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R8701,02		ERDS2TJ333	C.RESISTOR 1/4W 33K	2	
R8703		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R8704		ERDS2TJ153	C.RESISTOR 1/4W 15K	1	
R8705		ERDS2TJ682	C.RESISTOR 1/4W 6.8K	1	
R8706		ERDS2TJ392	C.RESISTOR 1/4W 3.9K	1	
R8707,08		ERDS2TJ102	C.RESISTOR 1/4W 1K	2	
R8709-11		ERDS2TJ391	C.RESISTOR 1/4W 390	3	
R8712,13		ERDS2TJ103	C.RESISTOR 1/4W 10K	2	
R8714		ERDS2TJ681	C.RESISTOR 1/4W 680	1	
R8715		ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R8716		ERDS2TJ681	C.RESISTOR 1/4W 680	1	
R8717		ERDS2TJ121	C.RESISTOR 1/4W 120	1	
R8718		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R8719		ERDS2TJ473	C.RESISTOR 1/4W 47K	1	
R8720		ERDS2TJ333	C.RESISTOR 1/4W 33K	1	
R8721		ERDS2TJ393	C.RESISTOR 1/4W 39K	1	
R8722		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R8723		ERDS2TJ561	C.RESISTOR 1/4W 560	1	
R8724		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
			SWITCHES		
SW3501		VSS0224	SWITCH	1	
SW3502		VSS0225	SWITCH	1	
			TRANSFORMERS		
T851		ELM7Q207A	TRANSFORMER	1	
T4001		EIQ7QF014Q	TRANSFORMER	1	
			VARIABLE RESISTORS		
VR301		EVN3ACA00B14	V.RESISTOR 10K	1	
VR2006		EVND4AA00B25	V.RESISTOR 200K	1	
VR2011		EVND4AA00B25	V.RESISTOR 200K	1	
VR2013		EVND4AA00B23	V.RESISTOR 2K	1	
VR2020-22		EVND4AA00B25	V.RESISTOR 200K	3	
VR3003		EVND4AA00B53	V.RESISTOR 5K	1	
VR3012,13		EVND4AA00B52	V.RESISTOR 500	2	
VR3501-03		EVN58AA00B25	V.RESISTOR 200K	3	
VR4002		EVND4AA00B25	V.RESISTOR 200K	1	
VR8001		EVND4AA00B13	V.RESISTOR 1K	1	
VR8008		EVND4AA00B53	V.RESISTOR 5K	1	
VR2001N		EVND4AA00B54	V.RESISTOR 50K	1	
VR2001P		EVND4AA00B54	V.RESISTOR 50K	1	
			CRYSTAL OSCILLATORS		
X301		VSX0225	CRYSTAL OSCILLATOR	1	
X801		VSX0162A	CRYSTAL OSCILLATOR	1	
X3501		VSX0099	CRYSTAL OSCILLATOR	1	
X6001		VSQ0565	BUZZER	1	
			MISCELLANEOUS		
		VMC0075	HEAT SINK FIX SPRING	1	FOR IC[illegible]01
		VSC1689	HEAT SINK	1	FOR IC[illegible]01
		VSC1068	HEAT SINK	1	FOR Q60[illegible]3
		VKC0329	HINGE	2	SERVO & SYSCON C.B.A.
		VKC0247	HINGE	2	
		VJF0553	C.B.A. SUPPORT	2	SERVO & SYSCON C.B.A.
		VEJ0698	REAR JACK	1	
		VJR0161	PACK PIN	1	ART. PL PACK C.B.A.

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
	■	VEP06461B	SERVO & SYSTEM CONTROL		(NLA)
			C.B.A.		INCLUDING THE
					SUB SERVO PACK C.B.A.
					(VEP02319A).
			CONNECTOR		
BP4002		VJP1253	CONNECTOR (MALE)	1	
			CAPACITORS		
C249		ECCF1H101JC	C.CAPACITOR 50V 100P	1	
C250		ECCF1H181JC	C.CAPACITOR 50V 180P	1	
C251		ECCF1H150JC	C.CAPACITOR 50V 15P	1	
C252		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C253		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C254		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C6501		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C6502		VCYD1C473MR1	S.CAPACITOR 16V 0.047U	1	
C6503		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C6504		ECUM1H562KBN	CHIP 50V 5600P	1	
C6505		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C6507		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C6509		ECQV1H224JZ	P.CAPACITOR 50V 0.22U	1	
C6510		ECQV1H474JZ	P.CAPACITOR 50V 0.47U	1	
C6512		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C6513		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C6514		ECQB1H472JH	P.CAPACITOR 50V 4700P	1	
C6515		ECQB1H332JH	P.CAPACITOR 50V 3300P	1	
C6516		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C6517		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C6518		ECUM1H472KBN	CHIP 50V 4700P	1	
C6519		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C6521		ECEA1CKN100	E.CAPACITOR 16V 10U	1	
C6522		VCYD1C473MR1	S.CAPACITOR 16V 0.047U	1	
C6523		ECUM1H562KBN	CHIP 50V 5600P	1	
C6524		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C6525		ECQB1H223JH	P.CAPACITOR 50V 0.022U	1	
C6526		ECEA1HK4R7	E.CAPACITOR 50V 4.7U	1	
C6527		ECEA0JK101	E.CAPACITOR 6.3V 100U	1	
C6528		ECEA0JK221	E.CAPACITOR 6.3V 220U	1	
C6529		ECEA16Z10	E.CAPACITOR 16V 10U	1	
C6530		ECEA1HKN2R2	E.CAPACITOR 50V 2.2U	1	
C6531		VCYD1C473MR1	S.CAPACITOR 16V 0.047U	1	
C6532		ECEA1HKN2R2	E.CAPACITOR 50V 2.2U	1	
C6534		ECQV1H683JZ	P.CAPACITOR 50V 0.068U	1	
C6537		ECEA1CK330	E.CAPACITOR 16V 33U	1	
C6538		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C6539		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C6540		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C6541		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C6544		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C6545		ECEA0JK221	E.CAPACITOR 6.3V 220U	1	
C6546		ECEA25Z6R8	E.CAPACITOR 25V 6.8U	1	
C6547,48		ECUM1H271KBN	CHIP 50V 270P	2	
C6549		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C6550		ECUM1H332KBN	CHIP 50V 3300P	1	
C6551		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C6552		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
			DIODES		
D6501,02		1SS254	DIODE	2	
D6505-10		1SS254	DIODE	6	
D6511		ERA15-01	DIODE	1	
D6512-15		1SS254	DIODE	4	
D6517,18		1SS254	DIODE	2	
D7520		1SS254	DIODE	1	
D6521		MA165	DIODE	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			INTEGRATED CIRCUITS		
IC6501		AN6562	IC	1	
IC6502		AN6914	IC	1	
IC6503		MN6740VCZK	IC	1	
IC6504		MN1280R	IC	1	
IC6505		AN6914	IC	1	
			CONNECTORS		
JP6501		VJS2154W	CONNECTOR (FEMALE)	1	
JP6502		VJS2156W	CONNECTOR (FEMALE)	1	
JP6503,04		VJS2157W	CONNECTOR (FEMALE)	2	
JP6506		VJS2149W	CONNECTOR (FEMALE)	1	
JP6508		VJS2157W	CONNECTOR (FEMALE)	1	
			COILS		
L202		VLQEL05F101K	COIL 100UH	1	
L6501		VLQEL07F222J	COIL 2200UH	1	
			CONNECTORS		
P6505		VJS1229T	CONNECTOR (FEMALE)	1	
P6507		VJP1232T	CONNECTOR (MALE) 5P	1	
			TRANSISTORS		
Q207		2SC2206	TRANSISTOR	1	
Q6501,02		2SC2021M	TRANSISTOR	2	
Q6506		2SD893	TRANSISTOR	1	
Q6507		2SD973	TRANSISTOR	1	
Q6508		2SD638	TRANSISTOR	1	
Q6509		2SB909M	TRANSISTOR	1	
Q6510		2SB909M	TRANSISTOR	1	(Q,R)
Q6511,12		2SA937M	TRANSISTOR	2	
			COMBINATION PARTS		
			(TRANSISTOR & RESISTORS)		
QR6501		2SD1676	COMBINATION PARTS	1	
QR6503		DTC144EA	TRANSISTOR-RESISTOR	1	OR UN1213
QR6507		DTA114EA	TRANSISTOR-RESISTOR	1	
QR6509		DTA144EA	TRANSISTOR-RESISTOR	1	
QR6510		DTA114EA	TRANSISTOR-RESISTOR	1	
QR6511,12		DTC144EA	TRANSISTOR-RESISTOR	2	OR UN1213
			RESISTORS		
R262		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R263		ERDS2TJ182	C.RESISTOR 1/4W 1.8K	1	
R264		ERDS2TJ333	C.RESISTOR 1/4W 33K	1	
R265		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R6501		ERJ6GMYJ824	CHIP 1/16W 820K	1	
R6502		ERJ6GMYJ392	CHIP 1/16W 3.9K	1	
R6503		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R6504		ERJ6GMYJ393	CHIP 1/16W 39K	1	
R6505		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R6506		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R6507		ERJ6GMYJ221	CHIP 1/16W 220	1	
R6508		ERJ6GMYJ824	CHIP 1/16W 820K	1	
R6509		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R6510,11		ERJ6GMYJ103	CHIP 1/16W 10K	2	
R6512,13		ERJ6GMYJ473	CHIP 1/16W 47K	2	
R6514		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R6515		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R6516		ERJ6GMYJ824	CHIP 1/16W 820K	1	
R6519		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R6522		ERJ6GMYG682	CHIP 1/16W 6.8K	1	
R6523		ERJ6GMYJ154	CHIP 1/16W 150K	1	

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R6524		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R6525,26		ERJ6GMYJ223	CHIP 1/16W 22K	2	
R6527		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R6528		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R6529		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R6530		ERJ6GMYJ393	CHIP 1/16W 39K	1	
R6531		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R6532		ERJ6GMYJ824	CHIP 1/16W 820K	1	
R6533		ERJ6GMYJ392	CHIP 1/16W 3.9K	1	
R6534		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R6535		ERJ6GMYJ221	CHIP 1/16W 220	1	
R6536,37		ERJ6GMYJ223	CHIP 1/16W 22K	2	
R6538		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R6539		ERJ6GMYJ821	CHIP 1/16W 820	1	
R6540		ERJ6GMYJ221	CHIP 1/16W 220	1	
R6547		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R6549		ERJ6GMYJ123	CHIP 1/16W 12K	1	
R6550-52		ERJ6GMYJ101	CHIP 1/16W 100	3	
R6553		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R6554		ERJ6GMYJ392	CHIP 1/16W 3.9K	1	
R6555		ERJ6GMYJ182	CHIP 1/16W 1.8K	1	
R6556		ERJ6GMYJ561	CHIP 1/16W 560	1	
R6557,58		ERJ6GMYJ153	CHIP 1/16W 15K	2	
R6559		ERJ6GMYJ122	CHIP 1/16W 1.2K	1	
R6560,61		ERJ6GMYJ333	CHIP 1/16W 33K	2	
R6562		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R6563		ERJ6GMYJ683	CHIP 1/16W 68K	1	
R6564		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R6565		ERJ6GMYJ271	CHIP 1/16W 270	1	
R6566		ERJ6GMYJ121	M.RESISTOR CH1/16W 120	1	
R6567		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R6568		ERG2SJ180	M.RESISTOR 2W 18	1	
R6569		ERJ6GMYJ391	CHIP 1/16W 390	1	
R6571		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R6572,73		ERJ6GMYJ471	CHIP 1/16W 470	2	
R6574		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R6575		ERJ6GMYJ271	CHIP 1/16W 270	1	
R6576		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R6577		ERJ6GMYJ824	CHIP 1/16W 820K	1	
R6578		ERJ6GMYJ105	CHIP 1/16W 1M	1	
R6579		ERJ6GMYJ221	CHIP 1/16W 220	1	
R6580		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R6581		ERD2FCG220	C.RESISTOR 2W 22	1	
R6582		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R6583		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R6584		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R6585		ERJ6GMYJ153	CHIP 1/16W 15K	1	
R6586,87		ERJ6GMYJ222	CHIP 1/16W 2.2K	2	
R6589		ERJ6GMYJ154	CHIP 1/16W 150K	1	
R6590		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R6591,92		ERJ6GMYJ561	CHIP 1/16W 560	2	
R6593		ERJ6GMYJ221	CHIP 1/16W 220	1	
R6594		ERJ6GMYJ124	CHIP 1/16W 120K	1	
R6595		ERJ6GMYJ221	CHIP 1/16W 220	1	
R6596		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R6597		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R6598		ERJ6GMYJ221	CHIP 1/16W 220	1	
			CRYSTAL OSCILLATORS		
X201		VSX0244	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VJR0227	PACK PIN	1	
	■	VEP03490B	0.32H SKEW C.B.A.		(NLA)

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			CAPACITORS		
C3801		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C3802		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C3803		ECEA1CK101	E.CAPACITOR 16V 100U	1	
C3804		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C3805		ECCF1H470JC	C.CAPACITOR 50V 47P	1	
C3806		ECCF1H560JC	C.CAPACITOR 50V 56P	1	
C3807		ECCF1H270JC	C.CAPACITOR 50V 27P	1	
C3809		ECCF1H080CC	C.CAPACITOR 50V 8P	1	
C3811		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C3812,13		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	2	
C3814		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C3815,16		ECEA1HK010	E.CAPACITOR 50V 1U	2	
C3817		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C3818		ECEA1CK330	E.CAPACITOR 16V 33U	1	
C3819		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C3820		ECEA1CK330	E.CAPACITOR 16V 33U	1	
C3821		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C3822,23		ECCF1H820JC	C.CAPACITOR 50V 82P	2	
C3824-26		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	3	
C3827		ECCF1H100DC	C.CAPACITOR 50V 10P	1	
C3828		ECCF1H101JC	C.CAPACITOR 50V 100P	1	
C3829		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C3830		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C3831		ECEA1CK101	E.CAPACITOR 16V 100U	1	
C3901		ECEA1CK220	E.CAPACITOR 16V 22U	1	
C3902		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C3903		ECCF1H101JC	C.CAPACITOR 50V 100P	1	
C3904		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C3905		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C3906		ECQB1H562JH	P.CAPACITOR 50V 5600P	1	
C3907		ECKF1H221KB	C.CAPACITOR 50V 220P	1	
C3908		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C3909		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C3910		ECEA1CK220	E.CAPACITOR 16V 22U	1	
C3911		ECQB1H152JH	P.CAPACITOR 50V 1500P	1	
C3912		ECQP1H392JZ	P.CAPACITOR 50V 3900P	1	
C3913		ECKF1H221KB	C.CAPACITOR 50V 220P	1	
C3914		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C3915		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
			DIODES		
D3801		RD10EB1	DIODE	1	
D3802-04		1SS254	DIODE	3	
			INTEGRATED CIRCUITS		
IC3801		BA7021	IC	1	
IC3802		TL8705P	IC	1	
IC3901		AN5753	IC	1	
			COILS		
L3801		VLQEL05F101K	COIL 100UH	1	
L3802		VLQEL05F560K	COIL 56UH	1	
L3803		VLQEL05F470K	COIL 47UH	1	
L3805		VLQEL05F270K	COIL 27UH	1	
L3806,07		VLQEL05F101K	COIL 100UH	2	
L3810		VLQEL05F101K	COIL 100UH	1	
L3811		VLQEL05F680J	COIL 68UH	1	
L3812		VLQEL05F100J	COIL 10UH	1	
L3901		VLQEL05F101K	COIL 100UH	1	
			CONNECTORS		
P3801		VJP1236T	CONNECTOR (MALE) 9P	1	
P3901		VJP1230T	CONNECTOR (MALE) 3P	1	

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			TRANSISTORS		
Q3801		2SD636	TRANSISTOR	1	
Q3802		2SB643	TRANSISTOR	1	
Q3803		2SC2206	TRANSISTOR	1	
Q3804		2SB641	TRANSISTOR	1	
Q3805		2SC2206	TRANSISTOR	1	
Q3901		2SD1991	TRANSISTOR	1	
Q3902		2SC2206	TRANSISTOR	1	
Q3903		2SD1206	TRANSISTOR	1	
Q3904		2SD1991	TRANSISTOR	1	
			COMBINATION PARTS		
			(TRANSISTOR & RESISTORS)		
QR3902		DTC114YA	TRANSISTOR RESISTOR	1	
QR3903		DTC144EA	TRANSISTOR RESISTOR	1	OR UN1213
			RESISTORS		
R3802		ERDS2TJ121	C.RESISTOR 1/4W 120	1	
R3803		ERDS2TJ272	C.RESISTOR 1/4W 2.7K	1	
R3804		ERDS2TJ273	C.RESISTOR 1/4W 27K	1	
R3805		ERDS2TJ122	C.RESISTOR 1/4W 1.2K	1	
R3806		ERDS2TJ271	C.RESISTOR 1/4W 270	1	
R3807		ERTD2ZHL333S	THERMISTOR 33K	1	
R3808		ERDS2TJ122	C.RESISTOR 1/4W 1.2K	1	
R3809		ERDS2TJ392	C.RESISTOR 1/4W 3.9K	1	
R3810		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R3811		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R3812		ERDS2TJ221	C.RESISTOR 1/4W 220	1	
R3813		ERDS2TJ222	C.RESISTOR 1/4W 2.2K	1	
R3814		ERDS2TJ681	C.RESISTOR 1/4W 680	1	
R3815		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R3816		ERDS2TJ822	C.RESISTOR 1/4W 8.2K	1	
R3817		ERDS2TJ821	C.RESISTOR 1/4W 820	1	
R3818		ERDS2TJ182	C.RESISTOR 1/4W 1.8K	1	
R3819		ERD2FCG390	C.RESISTOR 1/4W 39	1	
R3821		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R3901		ERDS2TJ562	C.RESISTOR 1/4W 5.6K	1	
R3902		ERDS2TJ123	C.RESISTOR 1/4W 12K	1	
R3903		ERDS2TJ222	C.RESISTOR 1/4W 2.2K	1	
R3904		ERDS2TJ152	C.RESISTOR 1/4W 1.5K	1	
R3905		ERDS2TJ390	C.RESISTOR 1/4W 39	1	
R3906		ERDS2TJ122	C.RESISTOR 1/4W 1.2K	1	
R3907		ERDS2TJ472	C.RESISTOR 1/4W 4.7K	1	
R3908		ERDS2TJ223	C.RESISTOR 1/4W 22K	1	
R3909		ERDS2TJ332	C.RESISTOR 1/4W 3.3K	1	
R3910		ERDS2TJ223	C.RESISTOR 1/4W 22K	1	
R3911		ERDS2TJ472	C.RESISTOR 1/4W 4.7K	1	
R3912		ERDS2TJ273	C.RESISTOR 1/4W 27K	1	
R3913		ERDS2TJ222	C.RESISTOR 1/4W 2.2K	1	
R3914		ERDS2TJ271	C.RESISTOR 1/4W 270	1	
R3915		ERDS2TJ222	C.RESISTOR 1/4W 2.2K	1	
R3916		ERDS2TJ333	C.RESISTOR 1/4W 33K	1	
R3917		ERDS2TJ473	C.RESISTOR 1/4W 47K	1	
R3918		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
			VARIABLE RESISTORS		
VR3801,02		EVND1AA00B13	V.RESISTOR 1K	2	
VR3901		EVN32CA00B52	V.RESISTOR 500	1	
			CRYSTAL OSCILLATOR		
X3801		VSX0173	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VMZ1261	BARRIER	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
	■	VEP05113F	HEAD AMP C.B.A.		(NLA)
			CAPACITORS		
C501		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C502		ECUM1H820JCN	CHIP 50V 82P	1	
C503		ECUM1H181JCN	C.CAPACITOR CH 50V 180P	1	
C504		ECUM1H270JCN	CHIP 50V 27P	1	
C505		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C506		ECUM1E473ZFN	CHIP 25V 0.047U	1	
C507		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C509		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C510,11		ECUM1E104ZFN	CHIP 25V 0.1U	2	
C513		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C514		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C515		ECUM1H102KBN	CHIP 50V 1000P	1	
C516		ECUM1H150JCN	CHIP 50V 15P	1	
C517		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C518,19		ECEA1CK100	E.CAPACITOR 16V 10U	2	
C520		ECUM1H150JCN	CHIP 50V 15P	1	
C521,22		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C523		ECUM1H150JCN	CHIP 50V 15P	1	
C524		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C526		ECUM1E104ZFN	CHIP 25V 0.1U	1	
C527		ECUM1H102KBN	CHIP 50V 1000P	1	
C528,29		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C530		ECUM1E473ZFN	CHIP 25V 0.047U	1	
C531		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C533		ECUM1H560JCN	CHIP 50V 56P	1	
C534		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C536		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C537		ECUM1H150JCN	CHIP 50V 15P	1	
C538		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C539		ECUM1H103ZFN	CHIP 50V 0.01U	1	
			INTEGRATED CIRCUITS		
IC501		AN3224K	IC	1	
IC502		AN3311S	IC	1	
			COILS		
L501		VLQEL05F101K	COIL 100UH	1	
L502		VLQEL05F820K	COIL 82UH	1	
L503		VLQEL05F151K	COIL 150UH	1	
L505		VLQEL05F101K	COIL 100UH	1	
L507		VLQEL05F270K	COIL 27UH	1	
			CONNECTORS		
P002		VJS1927	CONNECTOR (FEMALE)	1	
P501		VJP1248T	CONNECTOR (MALE) 8P	1	
P502		VJP1235T	CONNECTOR (MALE) 8P	1	
			TRANSISTOR		
Q501		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
			RESISTORS		
R501		ERJ6GMYJ561	CHIP 1/16W 560	1	
R502		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R503		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R504		ERJ6GMYJ331	CHIP 1/16W 330	1	
R506		ERJ6GMYJ471	CHIP 1/16W 470	1	
R508,09		ERJ6GMYJ100	CHIP 1/16W 10	2	

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R510		ERJ6GMYJ561	CHIP 1/16W 560	1	
R511,12		ERJ6GMYJ821	CHIP 1/16W 820	2	
R515		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R516		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R517		ERJ6GMYJ391	CHIP 1/16W 390	1	
R522		ERJ6GMYJ561	CHIP 1/16W 560	1	
R524		ERJ6GMYJ334	CHIP 1/16W 330K	1	
R526		ERJ6GMYJ223	CHIP 1/16W 22K	1	
			VARIABLE RESISTOR		
VR501		EVND1AA00B23	V.RESISTOR 2K	1	
			MISCELLANEOUS		
		VSC1834	SHIELD CASE (BOTTOM)	1	
		VSC2204	SHIELD CASE (TOP)	1	
		VSC2205	SHIELD CASE (MAIN)	1	
	■	VEP07438B	TIMER C.B.A.		(NLA)
					INCLUDING THE
					IR RECEIVER C.B.A.
					(VEP06380E).
			CAPACITORS		
C6701		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C6702		ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
C6703		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C6704		ECEA1HK3R3	E.CAPACITOR 50V 3.3U	1	
C7501		ECRHA030E41	TRIMER 30P	1	
C7502		ECUM1H050DCN	CHIP 50V 5P	1	
C7504		ECEA0JK221	E.CAPACITOR 6.3V 220U	1	
C7505,06		ECUM1H220JCN	CHIP 50V 22P	2	
C7507		ECEA1HK100	E.CAPACITOR 50V 10U	1	
C7508		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C7509		ECUM1H331KBN	CHIP 50V 330P	1	
C7510		ECUM1H104ZFN	CHIP 50V 0.1U	1	
C7511		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C7520		ECEA1HKR22	E.CAPACITOR 50V 0.22U	1	
C7521		ECUM1H102KBN	CHIP 50V 1000P	1	
C7522,23		ECUM1H561KBN	CHIP 50V 560P	2	
C7524		ECUM1H680JCN	CHIP 50V 68P	1	
C7525-28		ECUM1H271KBN	CHIP 50V 270P	4	
			DIODES		
D6701		PN323B	PHOTO DIODE	1	
D7501		ERA15-01	DIODE	1	
D7502		1SS254	DIODE	1	
D7503		MA4056	DIODE	1	
D7506-14		1SS254	DIODE	9	
D7523		1SS254	DIODE	1	
D7531		1SS254	DIODE	1	
D7535,36		1SS254	DIODE	2	
D7542		LN28RCPP	LED	1	
D7543		LN48YCPP	LED	1	
D7544		LN38GCPP	LED	1	
D7545		LN28RCPP	LED	1	
			DISPLAY TUBE		
DP7501		VSL0119	DISPLAY TUBE	1	
			INTEGRATED CIRCUITS		
IC6701		UPC1490HA	IC	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
IC7501		M50935V4AA	IC	1	
IC7502		MN1220	IC	1	
IC7503		MN1280P	IC	1	
IC7505		MN1280T	IC	1	
			COIL		
L7501		VLQEL05F221K	COIL 220UH	1	
			CONNECTORS		
P7501		VJP1251T	CONNECTOR (MALE) 11P	1	
P7504		VJS1937	CONNECTOR (FEMALE)	1	
P7505		VJP1393T	CONNECTOR (MALE) 13P	1	
P7506		VJP1251T	CONNECTOR (MALE) 11P	1	
			TRANSISTORS		
Q7501,02		2SD601	TRANSISTOR CHIP	2	
			COMBINATION PARTS		
			(TRANSISTOR & RESISTORS)		
QR7501		UN2112	TRANSISTOR-RESISTOR	1	
QR7509		UN2113	TRANSISTOR-RESISTOR	1	
QR7510,11		UN2213	TRANSISTOR-RESISTOR	2	
QR7521-23		UN2215	TRANSISTOR-RESISTOR	3	
QR7526		UN2211	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R6701		ERDS2TJ154	C.RESISTOR 1/4W 150K	1	
R6702		ERDS2TJ8R2	C.RESISTOR 1/4W 8.2	1	
R7501		ERJ6GMYJ122	CHIP 1/16W 1.2K	1	
R7502		ERJ6GMYJ224	CHIP 1/16W 220K	1	
R7503		ERJ6GMYJ105	CHIP 1/16W 1M	1	
R7504		ERJ6GMYK106	CHIP 1/16W 10M	1	
R7505		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R7506,07		ERJ6GMYJ222	CHIP 1/16W 2.2K	2	
R7509		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R7510		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R7511-14		ERJ6GMYJ103	CHIP 1/16W 10K	4	
R7515		ERJ6GMYJ101	CHIP 1/16W 100	1	
R7519		ERJ6GMYJ104	CHIP 1/16W 100K	1	
R7520-23		ERJ6GMYJ103	CHIP 1/16W 10K	4	
R7524-31		ERJ6GMYJ182	CHIP 1/16W 1.8K	8	
R7532		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R7533		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R7534		ERJ6GMYJ121	M.RESISTOR CH1/16W 120	1	
R7535		ERDS1TJ220	C.RESISTOR 1/2W 22	1	
R7536		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R7537		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R7543		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R7545		ERJ6GMYJ221	CHIP 1/16W 220	1	
R7546		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R7547		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R7548,49		ERJ6GMYJ473	CHIP 1/16W 47K	2	
R7550		ERJ6GMYJ561	CHIP 1/16W 560	1	
			SWITCH		
SW7540		VSP0308	SWITCH	1	
			VARIABLE RESISTOR		
VR6701		EVMLGGA00B15	V.RESISTOR 100K	1	

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			CRYSTAL OSCILLATORS		
X7501		VSX0140A	CRYSTAL OSCILLATOR	1	
X7502		VSX0094A	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VMD1047	LED HOLDER	4	FOR D7542,D7543,
					D7544,D7545
		VJF0548	FIP HOLDER	1	
		VSC1844	SHIELD CASE (TOP)	1	FOR IR RECEIVER
		VSC1928	SHIELD CASE (BOTTOM)	1	FOR IR RECEIVER
		VSC1929	SHIELD CASE (MAIN)	1	FOR IR RECEIVER
	■	VEP06462B	OPERATION C.B.A.		(NLA)
			DIODES		
D6801		LN38GCPPSVT	LED	1	
D6802		LN28RCPP	LED	1	
D6803,04		1SS254	DIODE	2	
			CONNECTORS		
P6801		VJF0171T	CONNECTOR	1	
P6801		VJP1394T	CONNECTOR (MALE)	1	
P7505		VJF0171T	CONNECTOR	1	
			RESISTORS		
R6801		ERDS2TJ181	C.RESISTOR 1/4W 180	1	
R6802		ERDS2TJ331	C.RESISTOR 1/4W 330	1	
R6803		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
			SWITCHES		
SW6801-04		EVQQS307K	SWITCH	4	
SW6805		ESD14314	SWITCH	1	
			VARIABLE RESISTOR		
VR6801		EVUJ16E04B24	V.RESISTOR 20K	1	
			MISCELLANEOUS		
		VMD1047	LED HOLDER	2	FOR D6801,D6802
		VGU3364	SW KNOB	1	
	■	VEP07459B	RF UNIT C.B.A.		(NLA)
					INCLUDING THE
					CH SELECT C.B.A.
					(VEP07423C).
			CAPACITORS		
C701		ECEA1CK220	E.CAPACITOR 16V 22U	1	
C702		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C705		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C706		ECQV1H823JZ	P.CAPACITOR 50V 0.082U	1	
C707		ECEA1CK220	E.CAPACITOR 16V 22U	1	
C708		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C709		ECEA1CK220	E.CAPACITOR 16V 22U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C713-16		ECUM1H103ZFN	CHIP 50V 0.01U	4	
C717		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C719		ECEA1HK0R1	E.CAPACITOR 50V 0.1U	1	
C720		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C721		ECEA1HKNR47	E.CAPACITOR 50V 0.47U	1	
C722		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C723		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C724		ECQB1H153JH	P.CAPACITOR 50V 0.015U	1	
C725		ECQB1H333JH	P.CAPACITOR 50V 0.033U	1	
C726		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C727		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C728		ECUM1H102ZFN	C.CAPACITOR CH 50V 1000P	1	
C729		ECUM1H561KCN	C.CAPACITOR CH 50V 560P	1	
C730		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C731		ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C732		ECUM1H680JLN	C.CAPACITOR CH 50V 68P	1	
C733		ECUM1H330JPN	C.CAPACITOR CH 50V 33P	1	
C734		ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C735		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C736		ECUM1H220JCN	CHIP 50V 22P	1	
C759		ECUM1H100DCN	CHIP 50V 10P	1	
C760		ECUM1H121JPN	C.CAPACITOR CH 50V 120P	1	
C761,62		ECQB1H103JH	P.CAPACITOR 50V 0.01U	2	
C763		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C764		ECUM1H101JCN	CHIP 50V 100P	1	
C765		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C766		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C767		ECQB1H123JH	P.CAPACITOR 50V 0.012U	1	
C768		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C769		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C770		ECUM1H560JPN	C.CAPACITOR CH 50V 56P	1	
C771		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C775		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C776		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C778		ECUM1H680JCN	CHIP 50V 68P	1	
C780		ECUM1H220JCN	CHIP 50V 22P	1	
C781		ECUM1H471JCN	C.CAPACITOR CH 50V 470P	1	
C784		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C787		ECEA1CKN220	E.CAPACITOR 16V 22U	1	
C788		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C791		ECEA1EKN4R7	E.CAPACITOR 25V 4.7U	1	
C792		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C793		ECUM1H330JCN	CHIP 50V 33P	1	
C794		ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C796		ECUM1H151JCN	CHIP 50V 150P	1	
C799		ECEA1CK220	E.CAPACITOR 16V 22U	1	
C7551		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C7552		ECQV1H683JZ	P.CAPACITOR 50V 0.068U	1	
C7553		ECQV1H823JZ	P.CAPACITOR 50V 0.082U	1	
C7554		ECQB1H273JH	P.CAPACITOR 50V 0.027U	1	
C7555,56		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C7557		ECEA1HK100	E.CAPACITOR 50V 10U	1	
C7558		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C7559		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C7560,61		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C7563		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C7564		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C7565		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C7569		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
			DIODE		
D706		MA165	DIODE	1	
D707		RD9.1JB2	DIODE	1	
D709		MA165	DIODE	1	
D710		MA29W	DIODE	1	
D711		MA3100L	DIODE	1	
D714,15		MA165	DIODE	2	
D7554		MA165	DIODE	1	
			INTEGRATED CIRCUITS		
IC701		M51419SP	IC	1	

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
IC702		VCR0244	IC	1	
IC705		UPC1167C2	IC	1	
IC7551		AN5043	IC	1	
			CONNECTORS		
JP701		VJS2151W	CONNECTOR (FEMALE)	1	
JP702		VJS2152W	CONNECTOR (FEMALE)	1	
			COILS		
L703		VLQEL05F680K	COIL 68UH	1	
L704,05		ELQT1R0KB	COIL 1UH	2	
L707		VLQEL05F680K	COIL 68UH	1	
L708		VLQEL05F100K	COIL 10UH	1	
L709		VLQEL05F8R2K	COIL 8.2UH	1	
L715		VLQEL05F680K	COIL 68UH	1	
L716,17		VLQEL05F820K	COIL 82UH	2	
L719		VLQEL05F180K	COIL 18UH	1	
L720		VLQEL05F220K	COIL 22UH	1	
L721		ELQTR47XB	COIL	1	
L722		VLQEL05F270K	COIL 27UH	1	
			CONNECTORS		
P7501		VJS1238T	CONNECTOR	1	
P7551		VJP1251T	CONNECTOR (MALE) 11P	1	
P7551		VJS1238T	CONNECTOR	1	
			PACK PINS		
PK7551		VJR0189	PACK PIN	1	
PK7552		VJR0188	PACK PIN	1	
			TRANSISTORS		
Q701		2SC1047	TRANSISTOR	1	(C)
Q702		2SD601	TRANSISTOR CHIP	1	
Q703		2SD601	TRANSISTOR	1	(S,T)
Q705		2SD638	TRANSISTOR	1	
Q706		2SD601	TRANSISTOR CHIP	1	
Q707		2SD636	TRANSISTOR	1	(Q,R,S,T)
Q712		2SC2404	TRANSISTOR CHIP	1	(C,D)
			COMBINATION PARTS		
			(TRANSISTOR & RESISTORS)		
QR701		UN2211	TRANSISTOR-RESISTOR	1	
QR702		UN2212	TRANSISTOR-RESISTOR	1	
QR704		UN2213	TRANSISTOR-RESISTOR	1	
QR710		UN2213	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R702		ERJ6GEYJ681	CHIP 1/16W 680	1	
R703		ERJ6GEYJ682	CHIP 1/16W 6.8K	1	
R704		ERD2FCG330	C.RESISTOR 2W 33	1	
R705		ERJ6GEYJ181	CHIP 1/16W 180	1	
R706		ERJ6GEYJ271	CHIP 1/16W 270	1	
R707		ERJ6GEYJ152	CHIP 1/16W 1.5K	1	
R708		ERDS2TJ332	C.RESISTOR 1/4W 3.3K	1	
R709		ERJ6GEYJ222	CHIP 1/16W 2.2K	1	
R710		ERJ6GEYJ684	CHIP 1/16W 680K	1	
R711		ERJ6GEYJ562	CHIP 1/16W 5.6K	1	
R713		ERJ6GEYJ751	CHIP 1/16W 750	1	
R714		ERJ6GEYJ331	CHIP 1/16W 330	1	
R715		ERDS2TJ274	C.RESISTOR 1/4W 270K	1	
R716		ERJ6GEYJ334	CHIP 1/16W 330K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R717		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R718		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R719		ERDS2TJ392	C.RESISTOR 1/4W 3.9K	1	
R720		ERDS2TJ472	C.RESISTOR 1/4W 4.7K	1	
R721		ERJ6GEYJ682	CHIP 1/16W 6.8K	1	
R722		ERJ6GEYJ152	CHIP 1/16W 1.5K	1	
R723		ERJ6GEYJ223	CHIP 1/16W 22K	1	
R724		ERJ6GEYJ332	CHIP 1/16W 3.3K	1	
R725		ERJ6GEYJ151	CHIP 1/16W 150	1	
R726		ERJ6GEYJ182	CHIP 1/16W 1.8K	1	
R728		ERJ6GEYJ181	CHIP 1/16W 180	1	
R729		ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R730		ERJ6GEYJ184	CHIP 1/16W 180K	1	
R731		ERDS2TJ331	C.RESISTOR 1/4W 330	1	
R732		ERJ6GEYJ274	CHIP 1/16W 270K	1	
R733		ERDS2TJ181	C.RESISTOR 1/4W 180	1	
R735		ERJ6GEYJ102	CHIP 1/16W 1K	1	
R737		ERJ6GEYJ102	CHIP 1/16W 1K	1	
R738		ERJ6GEYJ182	CHIP 1/16W 1.8K	1	
R739		ERJ6GEYJ222	CHIP 1/16W 2.2K	1	
R752		ERJ6GEYJ123	CHIP 1/16W 12K	1	
R753		ERJ6GEYJ272	CHIP 1/16W 2.7K	1	
R754		ERJ6GEYJ333	CHIP 1/16W 33K	1	
R755		ERJ6GEYJ103	CHIP 1/16W 10K	1	
R756		ERJ6GEYJ182	CHIP 1/16W 1.8K	1	
R757		ERJ6GEYJ102	CHIP 1/16W 1K	1	
R758		ERJ6GEYJ103	CHIP 1/16W 10K	1	
R759		ERJ6GEYJ102	CHIP 1/16W 1K	1	
R765		ERD2FCG220	C.RESISTOR 2W 22	1	
R766		ERJ6GEYJ821	CHIP 1/16W 820	1	
R767		ERJ6GEYJ822	CHIP 1/16W 8.2K	1	
R774		ERJ6GEYJ682	CHIP 1/16W 6.8K	1	
R775		ERJ6GEYJ391	CHIP 1/16W 390	1	
R776		ERJ6GEYJ681	CHIP 1/16W 680	1	
R778		ERJ6GEYJ222	CHIP 1/16W 2.2K	1	
R779		ERJ6GEYJ103	CHIP 1/16W 10K	1	
R780		ERJ6GEYJ333	CHIP 1/16W 33K	1	
R781		ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R782		ERJ6GEYJ103	CHIP 1/16W 10K	1	
R790		ERJ6GEYJ473	CHIP 1/16W 47K	1	
R793		ERJ6GEYJ183	CHIP 1/16W 180K	1	
R795		ERJ6GEYJ182	CHIP 1/16W 1.8K	1	
R796		ERJ6GEYJ102	CHIP 1/16W 1K	1	
R797		ERJ6GEYJ561	CHIP 1/16W 560	1	
R798		ERDS2TJ750	C.RESISTOR 1/4W 75	1	
R799		ERJ6GEYJ103	CHIP 1/16W 10K	1	
R7551,52		ERJ6GEYJ473	CHIP 1/16W 47K	2	
R7553		ERJ6GEYJ104	CHIP 1/16W 100K	1	
R7554		ERJ6GEYJ124	CHIP 1/16W 120K	1	
R7555		ERJ6GEYJ103	CHIP 1/16W 10K	1	
R7556		ERG1SJ152	M.RESISTOR 1W 1.5K	1	
R7557		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R7569		ERJ6GEYJ332	CHIP 1/16W 3.3K	1	
R7570		ERJ6GEYJ223	CHIP 1/16W 22K	1	
R7571		ERDS2TJ100	C.RESISTOR 1/4W 10	1	
R7572		ERJ6GEYJ102	CHIP 1/16W 1K	1	
R7573		ERJ6GEYJ222	CHIP 1/16W 2.2K	1	
			TRANSFORMERS		
T703		EIV5EC023A	TRANSFORMER	1	
T704		EIV5EC006A	TRANSFORMER	1	
T706		EIS5EC011A	TRANSFORMER	1	
T707		EIS5EC005A	TRANSFORMER	1	
			VARIABLE RESISTORS		
VR701,02		EVND4AA00B23	V.RESISTOR 2K	2	
VR704		EVND4AA00B14	V.RESISTOR 10K	1	
VR706,07		EVND4AA00B14	V.RESISTOR 10K	2	

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			CRYSTAL OSCILLATOR		
X701		EFCH38MMK1N	CRYSTAL OSCILLATOR	1	
X702		EFCS5M6MW3B	CRYSTAL OSCILLATOR	1	
X704		EFCS6M65MW3B	CRYSTAL OSCILLATOR	1	
X707		EFCS5R5MS4	CERAMIC FILTER 5.5MHZ	1	
X709		EFOA500KS5A	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VJF0374	C.B.A. HOLDER	1	
		VSC2233	SHIELD CASE (MAIN)	1	
		VSC2409	SHIELD CASE (TOP)	1	
		VSC2410	SHIELD CASE (BOTTOM)	1	
	■	VEP01310A	POWER C.B.A.		<!> (NLA)
					INCLUDING THE
					POWER INLET C.B.A.
					(VEP01311A).
			CAPACITORS		
C1002		ECQU2A683MN	P.CAPACITOR 100V 0.068U	1	
C1003		ECEA2DG010S	E.CAPACITOR 200V 1U	1	
C1004,05		VCC0016	.CAPACITOR 400V 100P	2	
C1006-08		VCC0021	.CAPACITOR 400V 470P	3	
C1009		ECOS2GU820B	E.CAPACITOR 400V 82U	1	
C1010		ECKD3D331KBN	C.CAPACITOR 2KV 330P	1	
C1011		ECQE6473MZ	P.CAPACITOR 630V 0.047U	1	
C1012		ECEA1CGE470	E.CAPACITOR 16V 47U	1	
C1013		ECEA1AGE470	E.CAPACITOR 10V 47U	1	
C1014		ECQB1H472KH	P.CAPACITOR 50V 4700P	1	
C1015		ECEA1HFS100	E.CAPACITOR 50V 10U	1	
C1016		ECQP1101T404	M.CAPACITOR 100V 100P	1	
C1017		ECEA1DFZ681Z	E.CAPACITOR 20V 680U	1	
C1018		ECEA1HGE100	E.CAPACITOR 50V 10U	1	
C1019		ECEA1AFZ331	E.CAPACITOR 10V 330U	1	
C1020		ECEA0JEE331	E.CAPACITOR 6.3V 330U	1	
C1021		ECEA1HGE101	E.CAPACITOR 50V 100U	1	
C1022		ECEA1DFZ681Z	E.CAPACITOR 20V 680U	1	
C1023-25		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	3	
C1026		ECEA1HGE100	E.CAPACITOR 50V 10U	1	
C1027		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C1028		ECEA1CGE100	E.CAPACITOR 16V 10U	1	
C1029		ECEA1AGE101	E.CAPACITOR 10V 100U	1	
C1030		ECQV1H473JZ	P.CAPACITOR 50V 0.047U	1	
C1033		ECEA1CGE101	E.CAPACITOR 16V 100U	1	
C1034		ECEA1AGE101	E.CAPACITOR 10V 100U	1	
			DIODES		
D1002		MA178	DIODE	1	
D1004		S1WBA60	DIODE	1	
D1005,06		MA178	DIODE	2	
D1007		11EFS4	DIODE	1	
D1008		RL4ZLF-M1	DIODE	1	
D1009		MA185	DIODE	1	
D1010		31DQ04A	DIODE	1	
D1011		AK04	DIODE	1	
D1012		MA2200B	DIODE	1	
D1013		MA4130L	DIODE	1	
D1014		VSD0002	DIODE	1	
D1015		AP01C	DIODE	1	
D1017		SV03YS	DIODE	1	
			INTEGRATED CIRCUIT		
IC1001		STK5339B	IC	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			COILS		
L1001		ELF18D290A	COIL	1	
L1002		ELC07D220	COIL 22U	1	
			CONNECTOR		
P1001		VJP1394T	CONNECTOR (MALE)	1	
			TRANSISTORS		
Q1001		STRD1806E	TRANSISTOR	1	
Q1003		2SD1275	TRANSISTOR	1	
Q1004		2SD1330	TRANSISTOR	1	
Q1005		2SD638	TRANSISTOR	1	
Q1006		2SD1330	TRANSISTOR	1	(S,T)
			COMBINATION PARTS		
			(TRANSISTOR & RESISTORS)		
QR1001		DTA143TV	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R1002,03		ERG2SJ333	M.RESISTOR 2W 33K	2	
R1004		ERW2PKR30T	WIRE WOUND 2W 0.3	1	
R1005,06		ERG1SJ104E	M.RESISTOR 1W 100K	2	
R1007		ERDS2TJ100	C.RESISTOR 1/4W 10	1	
R1009,10		ERDS2TJ102	C.RESISTOR 1/4W 1K	2	
R1011		ERG2SJ820	M.RESISTOR 2W 82	1	
R1012		ERG3ANJ683	M.RESISTOR 3W 68K	1	
R1013		ERF2AK2R2	W.RESISTOR 2W 2.2	1	
R1014		ERDS2TJ153	C.RESISTOR 1/4W 15K	1	
R1015,16		ERDS2TJ102	C.RESISTOR 1/4W 1K	2	
R1017		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R1018		ERDS2TJ562	C.RESISTOR 1/4W 5.6K	1	
R1019		ERG12ANJ332	M.RESISTOR 1/2W 3.3K	1	
R1020		ERD25FAJ100	C.RESISTOR 1/4W 10	1	
R1021		ERX1SJR20	M.RESISTOR 1W 0.20	1	
R1023		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
			TRANSFORMER		
T1001		VLT0521	TRANSFORMER	1	
			MISCELLANEOUS		
		VJS1972	AC INLET	1	<!>
		VJF0318	FUSE HOLDER	2	<!>
	■	VEP00K62A	CYLINDER DRIVE C.B.A.		(NLA)
			CAPACITORS		
C2901		ECEA1VSN2R2	E.CAPACITOR 35V 2.2U	1	
C2902		ECEA1VSN2R2	E.CAPACITOR 35V 2.2U	1	
C2903		ECEA1VSN2R2	E.CAPACITOR 35V 2.2U	1	
C2904		ECUM1E104KBM	CHIP 25V 0.1U	1	
C2905		ECUM1E104KBM	CHIP 25V 0.1U	1	
C2906		ECUM1E104KBM	CHIP 25V 0.1U	1	
C2907		ECQV1H823JS	P.CAPACITOR 50V 0.082U	1	
C2908		ECUM1E473KBM	CHIP 25V 0.47U	1	
C2909		ECUM1E104KBM	CHIP 25V 0.1U	1	
C2910		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C2911		ECEA1CKS100	E.CAPACITOR 16V 10U	1	

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C2912		ECEA0JKS220	E.CAPACITOR 6.3V 22U	1	
			INTEGRATED CIRCUITS		
IC2901		AN3814K	IC	1	
			CONNECTORS		
P2901		VJP1232T	CONNECTOR	1	
P2902		VJP1927	CONNECTOR	1	
			RESISTOR		
R2901		ERX12ANJR68	M.RESISTOR 1/4W 0.68	1	
			MISCELLANEOUS		
		VSC1843	HEAT SINK	1	
		VMA6884	MAIN HOLDER	1	
	■	VEK3583	MECHANISM CONNECTION C.B.A.		(NLA)
			CONNECTORS		
P1504		VJS2342	CONNECTOR	1	
P1505		VJP1242T	CONNECTOR	1	
			RESISTORS		
R1501		ERDS2TJ223	C.RESISTOR 1/4W 22K	1	
R1502		ERDS2TJ223	C.RESISTOR 1/4W 22K	1	
	■	VEK3555	REEL SENSOR C.B.A.		(NLA)
			INTEGRATED CIRCUIT		
IC1501		ON2170	IC	1	
			CONNECTOR		
P1506		VJP1242T	CONNECTOR	1	
	■	VXA2689	LED C.B.A.		(NLA)
			DIODE		
D1501		GL450	PHOT DIODE	1	
			MISCELLANEOUS		
		VMD0911	LED HOLDER	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
	■	VEK3577	TAKE UP PHOTO Tr. C.B.A.		(NLA)
			CAPACITOR		
C1502		ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
			CONNECTOR		
P1508		VJS2165	CONNECTOR	1	
			TRANSISTOR		
Q1502		PN150NV	TRANSISTOR	1	
			RESISTOR		
R1503		ERDS2TJ222	C.RESISTOR 1/4W 2.2K	1	
			MISCELLANEOUS		
		VMD0645	PHOTO Tr. HOLDER	1	
	■	VEK3578	SUPPLY PHOTO Tr. C.B.A.		(NLA)
			CAPACITOR		
C1501		ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
			TRANSISTOR		
Q1501		PN150NV	TRANSISTOR	1	
			MISCELLANEOUS		
		VMD0645	PHOTO Tr. HOLDER	1	
	■	VEP66038A	REMOTE CONTROLLER C.B.A.		(NLA)
			CAPACITORS		
C1		ECEA0GKS101	E.CAPACITOR 4V 100U	1	
C2		ECKF1H121KB	C.CAPACITOR 50V 120P	1	
C3		ECKF1H121KB	C.CAPACITOR 50V 120P	1	
C4		ECQB1H222KH	M.CAPACITOR 50V 2200P	1	
			DIODES		
D1		LN66S	LED	1	
D2-9		MA165	DIODE	8	
			INTEGRATED CIRCUIT		
IC1		MN6011M	IC	1	
			COMBINATION PARTS		
			(TRANSISTOR & RESISTORS)		
QR1		UN1231	TRANSISTOR-RESISTOR	1	

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			RESISTOR		
R1		ERDS2TJ1R0	C.RESISTOR 1/4W 1	1	
			CRYSTAL OSCILLATOR		
X1		VSX0201	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VJR0374	ELECTRODE (+)	1	
		VJR0375	ELECTRODE (-)	1	
	■	VEP66033C	DIGITAL SCANNER C.B.A.		(NLA)
			CAPACITORS		
C01		ECEA1AKA470I	E.CAPACITOR 10V 470U	1	
C02		ECEA1HKN010I	E.CAPACITOR 50V 1U	1	
C03		ECUM1E104ZFM	C.CAPACITOR 25V 0.1U	1	
C04		ECUM1E104ZFM	C.CAPACITOR 25V 0.1U	1	
C05		ECEA1HK010I	E.CAPACITOR 50V 1U	1	
C06		ECEA1AKA470I	E.CAPACITOR 10V 47U	1	
C07		ECUM1H330JCN	C.CAPACITOR 50V 33U	1	
C08		ECUM1H330JCN	C.CAPACITOR 50V 33U	1	
C09		ECUM1H103ZFN	C.CAPACITOR 50V 0.01U	1	
			DIODES		
D01-04		MA151WK	DIODE	4	
D05		MA153	DIODE	1	
D06		SE303ACY	DIODE	1	
			INTEGRATED CIRCUIT		
IC01		UPD49HG891DP	IC	1	
IC02		UPC324G2	IC	1	
IC03		RC78L02UAA1	IC	1	
			COIL		
L01		ELT3K017B	COIL	1	
			TRANSISTORS		
Q01,02		2SB710	TRANSISTOR	2	(Q,R,S)
Q03		2SB709	TRANSISTOR	1	(Q,R,S)
Q04		2SD601	TRANSISTOR	1	(Q,R,S)
Q05		2SB709	TRANSISTOR	1	(Q,R,S)
			RESISTORS		
R01		ERJ6GMYJ560	CHIP 1/16W 56	1	
R02		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R03		ERJ6GMYJ153	CHIP 1/16W 15K	1	
R04		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R05		ERJ6GMYJ202	CHIP 1/16W 2K	1	
R06		ERJ6GMYJ244	CHIP 1/16W 240K	1	
R07		ERJ6GMYJ162	CHIP 1/16W 1.6K	1	
R10		ERJ6GMYK106	CHIP 1/16W 10M	1	
R11		ERJ6GMYJ105	CHIP 1/16W 1M	1	
R12		ERJ6GMYK106	CHIP 1/16W 10M	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R13		ERJ6GMYJ361	CHIP 1/16W 360	1	
R14		ERJ6GMYJ682	CHIP 1/16W 6.8K	1	
R15		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R16		ERJ6GMYJ682	CHIP 1/16W 6.8K	1	
R17		ERJ6GMYJ682	CHIP 1/16W 6.8K	1	
R18		ERJ8GCYJ120	CHIP 1/8W 12	1	
R20		ERJ6GMYJ104	CHIP 1/16W 100K	1	
R23		ERJ6GMYJ681	CHIP 1/16W 680	1	
R24		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R29		ERJ8GCYJ150	CHIP 1/8W 15	1	
			SENSOR		
SN1		VSQ0567	SENSOR	1	
			SWITCHES		
SW01		VSS0126	SLIDE SWITCH	1	
SW02		EVQQFV02K	SWITCH	1	
			VARIABLE RESISTOR		
VR09		EVND4KA00B25	V.RESISTOR 200K	1	
			CRYSTAL OSCILLATORS		
X01		VSX0224	CRYSTAL OSCILLATOR	1	
X02		EFBAL30D001K	BUZZER	1	
			MISCELLANEOUS		
		VGQ1406	TERMINAL BASE	1	
		VJR0401	TERMINAL ANGLE	1	
	■	ENC87794	RF CONVERTER		<!>
			DIODES		
D1		MA1075	ZENER	1	
D2		MA166	DIODE	1	
D3		MA166	DIODE	1	
D4		MA166	DIODE	1	
D5		HSM276S	DIODE	1	
D6		MA166	DIODE	1	
D7		MA166	DIODE	1	
			INTEGRATED CIRCUIT		
IC1		LA7051	IC	1	
			TRANSISTORS		
Q1		2SC3130	TRANSISTOR	1	
Q2		2SC2570A	TRANSISTOR	1	
Q3		2SC2570A	TRANSISTOR	1	
			NOTE:		
			THE OTHER PARTS FOR		
			RF CONVERTER ARE NOT		
			AVAILABLE AS SPARE PARTS.		

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.